

Memory Type	RAM Bytes	A/D	D/A	Serial Communication	Timers 8/16/32	GPIO	Operating Frequency/ Supply Voltage	Temperature	Package	Digi-Key Part No.	Price Each		
ROMless	—	—	—	1 UART, Smart Card	—/—/5	39	200MHz/2.0 ~ 3.3V	-20°C ~ 75°C	256-BGA	D6417751RBP200DV-ND◆	44.67	39.42	37.45
	—	4-ch. 10-bit	—	3 UART, 2 I²C, Smart Card, 2 CAN, USB	—/—/3	69	200MHz/2.0 ~ 3.3V	-20°C ~ 75°C	256-BGA	D6417760BP200ADV-ND◆	45.27	39.94	37.95
	32K	—	—	I²C, SCI, USB	—/2/—	86	200MHz/2.0 ~ 3.3V	-20°C ~ 70°C	256-BGA	R5S76700B200BG-ND	19.54	16.61	15.39
	16K	4-ch. 10-bit	2-ch. 8-bit	I²C, SCI, SIO, SSI, USB	—/4/6	107	133MHz/1.5 ~ 3.3V	-20°C ~ 75°C	499-BGA	R5S77631Y266BGV-ND◆	47.63	42.03	39.93
	16K	—	—	I²C, SSU*, Ethernet/USB	—/—/6	77	324MHz/3.3V	-20°C ~ 75°C	404-BGA	R5S77640N300BG-ND	44.59	39.34	37.38
	16K	4-ch. 10-bit	2-ch. 8-bit	I²C, SCI, SIO, SSI, USB	—/4/6	107	133MHz/1.5 ~ 3.3V	-20°C ~ 75°C	256-CSP	R8A77210C133BAV-ND◆	29.78	25.76	24.15
	16K	4 ch. 10-bit	—	SCI, SSU, USB, IrDA	—/4/6	162	400MHz/3.0 ~ 3.6V	-20°C ~ 70°C	449-BGA	R8A77230C400BG#U0-ND◆	64.49	57.44	54.42
	16K	—	—	SCI, SIO, SPI, SSI	—/4/6	75	400MHz/1.25 ~ 3.3V	-20°C ~ 75°C	449-BGA	R8A77800BN8GV-ND◆	75.28	67.05	63.52

◆ RoHS Compliant *SSU = SPI®

Tools

Description	Digi-Key Part No.	Price Each
Kits — Evaluation, Development and Starter		
Reference Platform Motor Control for R8C/25	YMCPR8C25-ND	784.38
Demo Platform H8/300H 10MHz	YH8SPB-ND	71.91
Demo Platform M16C 20MHz	YM16CSPB-ND	71.91
Development Evaluation Kit H8S/2218	3DK2218-SS-ND	680.68
Development Evaluation Kit H8/38076R	3DK38076-ND	191.39
Development Evaluation Kit H8/38086R	3DK38086R-ND	168.17
Development Evaluation Kit H8S/2215	EDK2215-ND	293.28
Development Evaluation Kit H8S/2215	EDK2215R-ND	288.29
Development Evaluation Kit H8S/2239	EDK2239-ND	261.86
Development Evaluation Kit H8S/2282	EDK2282-ND	261.86
Development Evaluation Kit H8S/2329	EDK2329-ND	228.23
Development Evaluation Kit H8S/2378	EDK2378-ND	336.34
Development Evaluation Kit H8S/2674	EDOSK2674-ND	187.19
Flash Programmer	FDM-ND	336.34
Development H8 HEW and E10A	HEWH8E10A-ND◆	984.78
Development E10A-USB 14-pin Cable	HS0005ECU01H-ND	104.63
Development Add-On Board RSK38347	ROK0APBDB010BE-ND	180.18
Development RSK Add-On Board Ethernet and USB	ROK0APBDB020BE-ND	390.39
Development Evaluation Kit M16C/26A	ROK33026AS000BE-ND	180.18
Development Evaluation Kit M16C/29	ROK33029S000BE-ND◆	180.18
Development Evaluation Kit M16C/6NKC	ROK3306NKS001BE-ND	180.18
Starter Kit for H8S/2215R	ROK42215RS001BE-ND◆	468.47
Development Evaluation Kit H8/38099	ROK438099S000BE-ND	180.18
Development Evaluation Kit H8/38347	ROK438347S000BE-ND	180.18
Development Evaluation Kit R8C/1B	ROK5211B4S000BE-ND	180.18
Development Evaluation Kit R8C/25	ROK521256S000BE-ND	180.18
Starter Kit H8S/2472	ROK52472VS000BE-ND◆	570.57
Development Evaluation Kit H8SX/1582F	ROK561582S000BE-ND	180.18
Starter Kit H8SX/1622	ROK561622S000BE-ND◆	468.47
Development Evaluation Kit H8S/1664F	ROK561664S000BE-ND	180.18
Development Evaluation Kit SH7086	ROK57086S000BE-ND	240.24
Development Evaluation Kit SH7124	ROK571242S000BE-ND	180.18
Starter Kit for SH7124	ROK571242S001BE-ND	468.47
Development Evaluation Kit SH7203	ROK572030S000BE-ND	1066.67
Starter Kit for SH7286	ROK572867S000BE-ND◆	468.47
Development Evaluation Kit CAN R8C/23	RCDK8C-ND	420.42
Development Evaluation Kit ZigBee 2.4GHz	RZB-CC28FC-BRD-ND◆	191.44
Development Evaluation Kit H8/38024	SKP38024-ND	90.53
Development Evaluation Kit H8/38602R	SKP38602-ND	90.53
Development Evaluation Kit R8C/SPB	YR8CSPB-ND◆	71.91
Starter Kit M32C/87	ROK330879S001BE-ND	180.18
Development Programmable Board, 3823 Group	ROK303823A000BR-ND	240.24
Evaluation Kit for SH7216	ROK572167S000BE-ND◆	648.65
Development Board for SH7216	YRDKSH7216-ND◆	169.32
Evaluation Kit for SH7264	YRDK572643S000BE-L-ND◆	1041.44
Starter Kit H8S/2456	YLCDRSK2456S-ND◆	660.66

Description	Digi-Key Part No.	Price Each
Emulators		
Development Emulator Base Unit H8S/2100	E62140-ND	6255.85
Development Emulator Base Unit H8S/2300	E62339-ND	6345.22
Development Emulator Base Unit H8S/2633	E62633R-ND	6745.94
Development Emulator Base Unit H8S/2678	E62678R-ND	7238.91
Development Emulator Base Unit H8/3064	E63064B-ND	6970.80
Development Emulator Base Unit H8/300L	E63800-ND	5588.17
On Chip Debug Emulator	HS0005KCU01H-ND	980.98
On Chip Debug Emulator with Trace	HS0005KCU02H-ND	1556.76
On Chip Debug Emulator E10A Lite	HS0005KCU11H-ND	600.60
Emulator Base Unit H8S/2168	HS2168EP161H-ND	5996.39
Compact Emulator for M16C/26A/28/29	M30290T2-CPE-ND◆	1037.84
Compact Emulator for M16C/Tiny	M30290T2-CPE-HP-ND	1255.58
Compact Emulator for M16C/26A/28/29	M3062PT3-CPE-3-ND◆	1191.59
Emulator Base Unit M16C/60	M3062PT3-RPD-E-ND	2729.13
Compact Emulator for M16C/62P	ROKZ1SNY003001R-ND	2596.13
Emulator Personality Kit R8C/13	ROE521000EPB00-ND	810.81
Emulator Base EBA for H8 and M16C	ROE00008AKCE0-ND◆	125.13
Emulator Personality Kit R8C/13	ROE521134CPE00-ND	1239.64
Emulator Personality Kit R8C/10-13	ROE521134EPB00-ND	1105.10
Emulator Personality Kit R8C/17	ROE521174CPE00-ND	1239.64
Emulator for R8C/18/19/1A/1B	ROE521174CPE10-ND◆	1153.15
Emulator Personality Kit R8C/20-23	ROE521237CPE00-ND◆	1239.64
On Chip Debug Emulator	RTA-FOUSB-MON-ND	48.74
Accessories		
Development Emulator Accessory	E6EIOEXT-ND	264.26
Emulator PCB Adapter 128-QFP	EHB2328Q128-ND	617.42
Emulator PCB Adapter 128-QFP	EHB2633Q128-ND	845.64
Emulator PCB Adapter 100-QFP	EHB3064BQ100B-ND	372.37
Emulator PCB Adaptor 120-TQFP	HS1650ECN61H-ND	876.88
Personality Kit H8SX/1650	HS1650EPH60H-ND	6842.04
Emulator PCB Adapter 100-QFP	HS2148ECH61HE-ND	1143.88
Emulator PCB Adapter 64-QFP	HS2212ECH61H-ND	2104.50
Emulator PCB Adapter 112-LFBGA	HS2215ECB62H-ND	2159.51
Emulator PCB Adapter 120-TQFP	HS2215ECN61H-ND	1994.95
Emulator PCB Adapter 120 TQFP	HS2215RECN61H-ND◆	1998.80
Emulator PCB Adapter 100-QFP	HS2218ECN61H-ND	1998.80
Emulator PCB Adapter 112-LFBGA	HS2238REC62H-ND	1556.76
Emulator PCB Adapter 144-QFP	HS2338ECH61H-ND	1037.84
Emulator PCB Adapter 144-QFP	HS2378ECH61H-ND	1316.52
Emulator Personality Kit H8S/2633	HS2633ECH61HE-ND	1032.07
Emulator Personality Kit M16C/28	M30291T-EPB-HP-ND	982.58
Emulator Personality Kit M16C/62P	M3062PT-EPB-ND	1088.29
Emulator PCB Adapter 100-LQFP	M3T-F160-100NSD-ND	320.32
Emulator PCB Adapter 128-LQFP	M3T-F160-128NRD-ND	380.38

◆ RoHS Compliant



QSK62P Plus

The QSK62P Plus Quick Start Kit (QSK) is a low-cost development environment for evaluating the M16C/60 series of microcontrollers (MCU) and Renesas software development tools. The QSK62P Plus uses the M30620FC MCU, which belongs to the M16C/60P group of the M16C/60 series. The M30620FC MCU has all of the on-chip peripheral functions of the M16C/30P group MCUs (plus some more), so it can be considered a "superset" suitable for evaluating the M16C/30P group as well. The kits come with a complete software development tool chain for Renesas MCUs, including the NC30WA

C-compiler, assembler and linker; a "stripped down" E8 Emulator; and the High-performance Embedded Workshop (HEW), which consists of Integrated Development Environment (IDE), Graphical User Interface (GUI) and Software Debugger. The QSK62P Plus boards feature on-board in-circuit debugging and programming support (ICD), eliminating the need for an external ICD unit. All that is required for in-circuit debugging and programming with the QSK62P Plus is a USB connection to a PC running the included development tool software.

867-1000-ND (QSK-62P PLUS) **56.03**



CIRRUS LOGIC®

Energy Measurement



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
6-Channel Delta/Sigma ADC, 28-SSOP	598-1093-5-ND	6.89 6.14	CS5451A-ISZ
Single Phase Bi-Directional Power/Energy IC, 24-SSOP	598-1094-5-ND	3.81 3.07	CS5460A-RSZ
Single Phase Bi-Directional Power/Energy IC, 24-SSOP	598-1701-ND	4.06 3.39	CS5460F-ISZ
Single Phase Bi-Directional Power/Energy IC, 24-SSOP	598-1095-5-ND	3.82 3.19	CS5461A-ISZ
Single Phase Bi-Directional Power/Energy IC, 24-SSOP	598-1096-5-ND	3.00 2.42	CS5463-ISZ
Single Phase Power/Energy IC, 3-Channel, 28-SSOP	598-1194-5-ND	3.45 2.78	CS5464-ISZ
LC Power/Energy IC with Pulse Output, 2-Ch., 24-TSSOP	598-1097-5-ND	3.68 3.07	CS5466-ISZ
Single Phase Power/Energy IC, 4-Channel, 28-SSOP	598-1197-5-ND	4.92 4.11	CS5467-ISZ

CDB5461AU Evaluation Board

This is an inexpensive tool designed to evaluate the functionality and performance of the CS5461A. The evaluation board includes an LT1019 voltage reference, a C8051F320 microcontroller with a USB interface, and firmware. The microcontroller controls the serial communication between the evaluation board and the PC via the firmware, enabling quick and easy access to all of the CS5461A's registers and functions.

598-1552-ND (CDB5461AU) **165.17**

CDB5463U Evaluation Board

This is an inexpensive tool designed to evaluate the functionality and performance of the CS5463 analog to digital converter. The evaluation board includes an LT1019 voltage reference, a C8051F320 microcontroller with a USB interface, and firmware. The microcontroller controls the serial communication between the evaluation board and the PC via the firmware, enabling quick and easy access to all of the CS5463's registers and functions. The CDB5463U includes software for data capture, time domain analysis, histogram analysis, and frequency domain analysis.

598-1553-ND (CDB5463U) **165.17**

CDB5464U Evaluation Board

This is an inexpensive tool designed to evaluate the functionality and performance of the CS5464 analog to digital converter. The evaluation board includes an LT1019 voltage reference, a C8051F320 microcontroller with a USB interface, and firmware. The microcontroller controls the serial communication between the evaluation board and the PC via the firmware, enabling quick and easy access to all of the CS5464's registers and functions. The CDB5464U includes software for data capture, time domain analysis, histogram analysis, and frequency domain analysis.

598-1554-ND (CDB5464U) **165.17**

CDB5466U Evaluation Board

The CS5466 is a low cost power/energy IC with pulse output for power measurement solutions. The CDB5466U evaluation board is an inexpensive tool designed to evaluate the functionality and performance of the CS5466. The evaluation board includes a microcontroller with USB interface. The microcontroller and GUI (Graphical User Interface) provide a means to quickly register and evaluate the CS5466's energy-to-pulse outputs.

598-1011-ND (CDB5466U) **165.17**

CDB5467U Evaluation Board

This is an inexpensive tool designed to evaluate the functionality and performance of the CS5467 analog to digital converter. The evaluation board includes an LT1019 voltage reference, a C8051F320 microcontroller with a USB interface, and firmware. The microcontroller controls the serial communication between the evaluation board and the PC via the firmware, enabling quick and easy access to all of the CS5467's registers and functions. The CDB5467U includes software for data capture, time domain analysis, histogram analysis, and frequency domain analysis.

598-1555-ND (CDB5467U) **165.17**

CODEC



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
AC97 CODEC			
AC '97 with Headphone Amp, S/PDIF Transmitter, 20-Bit DAC, 18-Bit ADC, 48-LQFP	598-1181-ND	7.22 6.42	CS4202-JQZ
AC '97 for Portable Computing, Sample-Rate Converter, 20-Bit Stereo DAC, 18-Bit Stereo ADC, 48-LQFP	598-1182-ND	9.04 8.04	CS4205-KQZ
AC '97 2.1 Compatible Stereo Audio, 48-TQFP	598-1044-ND	6.09 5.42	CS4299-JQZ
Multi-Channel CODEC			
102dB, 2-Ch. AD, 105dB 6-Ch. DA Surround 24-Bit, 192kHz, 48-LQFP	598-1027-ND	7.61 6.77	CS42406-CQZ
110dB 2-Ch. AD, 114dB 8-Ch. DA Surround 24-Bit, 192kHz, 64-LQFP, 6-Ch. with PLL	598-1029-ND	7.99 6.56	CS42418-CQZ
114dB 2-Ch. AD, 110dB 6-Ch. DA 24-Bit, 192kHz, 64-LQFP with PLL	598-1028-ND	6.25 5.13	CS42416-CQZ
114dB 2-Ch. AD, 114dB 8-Ch. DA Surround 24-Bit, 192kHz, 64-LQFP with PLL	598-1031-ND	9.89 8.11	CS42428-CQZ
105dB, 6-Ch. AD, 108dB 6-Ch. DA, 192kHz, 52-MQFP, TDM, I2C/SP	598-1612-ND	8.81 7.41	CS42436-CMZ
105dB, 6-Ch. AD, 108dB 6-Ch. DA, 192kHz, 52-MQFP, TDM, I2C/SP	598-1613-ND	10.57 8.89	CS42436-DMZ
105dB 6-Ch. AD, 108dB 8-Ch. DA, 192kHz, 52-MQFP, TDM	598-1032-ND	9.59 8.06	CS42438-CMZ
105dB 6-Ch. AD, 108dB 8-Ch. DA, 192kHz, 52-MQFP, TDM	598-1614-ND	11.51 9.68	CS42438-DMZ
105dB 6-Ch. AD, 108dB 8-Ch. DA, 192kHz, 64-LQFP with Input MUX	598-1033-ND	9.19 7.74	CS42448-CQZ
105dB 6-Ch. AD, 108dB 8-Ch. DA, 192kHz, 64-LQFP with Input MUX	598-1615-ND	11.04 9.29	CS42448-DOZ
114dB 2-Ch. AD, 110dB 6-Ch. DA Surround 24-Bit, 192kHz, 64-LQFP 6-Ch. with S/PDIF Rx	598-1035-ND	6.59 5.41	CS42516-CQZ
114dB 2-Ch. AD, 110dB 8-Ch. DA Surround 24-Bit, 192kHz, 64-LQFP 6-Ch. with S/PDIF Rx	598-1036-ND	8.43 6.92	CS42518-CQZ
114dB 2-Ch. AD, 114dB 6-Ch. AD Surround 24-Bit, 192kHz, 64-LQFP with S/PDIF Rx	598-1037-ND	8.57 7.03	CS42526-CQZ
114dB 2-Ch. AD, 114dB 8-Ch. DA Surround 24-Bit, 192kHz, 64-LQFP with S/PDIF Rx	598-1038-ND	9.19 7.74	CS42528-CQZ
105dB 4-Ch. AD, 108dB 8-Ch. DA 24-Bit, 192kHz, 64-LQFP, TDM	598-1625-ND	9.79 8.24	CS42888-DOZ
Stereo Audio CODEC			
Low Power, 32-QFN, with Headphone Amp	598-1627-ND	6.09 5.42	CS42L51-DNZ
Low Power, 32-QFN, with Headphone Amp	598-1045-ND	5.43 4.53	CS42L51-CNZ
Low Power, 40-QFN, with Headphone and Speaker Amp	598-1628-ND	5.67 4.73	CS42L52-CNZ
Ultra Low Power, 36-QFN with Class H Headphone Amp	598-1629-ND	5.86 4.89	CS42L55-CNZ
91/94dB, 3V ~ 5.25V, 2/1 ADCs/DACs, 64-WLCS	598-1802-1-ND	5.91 5.32	CS42L73-CWZ
	598-1802-2-ND	17717.70/6.000	CS42L73-CWZ
104dB, 24-Bit, 192kHz, 48-LQFP	598-1034-ND	5.41 4.44	CS42455-CQZ

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
104dB, 24-Bit, 192kHz, 48-LQFP	598-1616-ND	6.51 5.34	CS4245-DOZ
105dB, 24-Bit, 192kHz, 32-QFN with S/PDIF Tx	598-1039-ND	5.21 4.27	CS4265-CNZ
105dB, 24-Bit, 192kHz, 24-TSSOP with 3.3V Operation	598-1040-5-ND	4.44 3.57	CS4270-CZZ
105dB, 24-Bit, 192kHz, 24-TSSOP with 3.3V Operation	598-1622-ND	5.75 5.12	CS4270-DZZ
108dB AD, 114dB DA, 24-Bit, 192kHz, 28-TSSOP with Oscillator	598-1041-5-ND	6.95 5.70	CS4271-CZZ
114dB, 24-Bit, 192kHz, 28-TSSOP with Oscillator	598-1042-5-ND	7.29 5.98	CS4272-CZZ
100dB, 24-Bit, 10-in, 6-out, 2Vrms 48-LQFP	598-1602-ND	7.29 6.48	CS42324-CQZ

Audio SOC Processor

Audio DSP, 32-Bit, 2-Ch. ADC In/8-Ch. DAC out for car audio, sound bar, DVD receiver, 100-LQFP	598-1656-ND	20.40 17.23	CS47028C-CQZ
Audio DSP, 32-Bit, 4-Ch. ADC In/8-Ch. DAC out for car audio, high-end digital TV, 100-LQFP	598-1657-ND	22.76 19.22	CS47048C-CQZ
Audio DSP, 32-Bit, 2-Ch. ADC In/4-Ch. DAC out for car audio, digital TV, portable audio docking station, portable DVD, DVD mini/receiver, multimedia PC speakers, 100-LQFP	598-1791-ND	19.08 16.12	CS47024C-CQZ

✂ Cut Tape ⬆ Tape and Reel

CDB4265 Evaluation Board

The CDB4265 evaluation board is an excellent means for evaluating the CS4265 CODEC. System timing for I²S, Left-Justified and Right-Justified interface formats can be provided by the CS4265, the CS8416, or by a PCM I/O stake header with an external source connected. RCA phono jacks are provided for the CS4265 analog inputs and outputs. Digital data I/O is available via RCA phono or optical connectors to the CS8416 and CS4265. The Windows® software provides a GUI to make configuration of the CDB4265 easy. The software communicates through the PC's serial port to configure the control port registers so that all features of the CS4265 can be evaluated. The board may also be configured to accept external timing and data signals for operation in a user application during system development. **Features:** • Coaxial and Optical Connections for CS4265 S/PDIF Transmitter Output • CS8416 S/PDIF Digital Audio Receiver • Header for external PCM serial audio I/O • 3.3 V Logic Interface • Pre-defined Software Scripts • Windows Compatible Software Interface

598-1001-ND (CDB4265) **432.43**

CDB4271 Evaluation Board

This is an excellent means for evaluating the CS4271 stereo CODEC. Evaluation requires an analog/digital signal source, and analyzer, and power supplies. Windows® PC compatible computer may be used to evaluate the CS4271 in control port mode. System timing can be provided by the CS4271, by the CS8416 phase-locked to its S/PDIF input, by an I/O stake header or by an on-board oscillator. RCA phono jacks are provided for the CS4271 analog outputs and inputs. Digital data I/O is available via RCA phono or optical connectors to the CS8416 and CS8406. Microsoft Windows® software provided a GUI to make configuration of the board easy. The software communicates through the PC's parallel port to configure the hardware so all features can be evaluated. **Features:** • Single-ended inputs • CS8406 S/PDIF digital audio transmitter • CS8416 S/PDIF digital audio receiver • Header for optional external configuration of CS4271 • Header for external DSP serial audio I/O • 3.3V ~ 5.0V Logic Interface

598-1003-ND (CDB4271) **324.32**

CDB42324 Evaluation Board

This evaluation board is an excellent means for evaluating the CS42324 CODEC. Evaluation requires an analog signal source/analyzer and power supplies. A Windows® PC compatible computer must be used to evaluate the CS42324. RCA phono jacks are provided for the CS42324 analog inputs and outputs. Digital data I/O is available via RCA phono or optical connectors to the CS8416 and CS8406.

598-1498-ND (CDB42324) **629.63**

CDB42428 Evaluation Board

This demonstration board is an excellent means for evaluating the CS424xx family of highly integrated multi-channel CODECs. Evaluation requires an analog/digital signal source and analyzer, Windows® compatible computer, and power supplies. RCA phono jacks are provided for the CS5361 analog inputs and CS424xx analog inputs and outputs. Digital data I/O is available via RCA phono jacks or optical connectors to the CS8416 and from the CS8406.

598-1499-ND (CDB42428) **378.38**

CDB42438 Evaluation Board

This evaluation board is an excellent means for evaluating the CS42438 CODEC. Evaluation requires an analog/digital signal source/analyzer, and power supplies. Optionally, a Windows® PC compatible computer may be used to evaluate the CS42438 in software mode. RCA phono jacks are provided for the CS42438 analog inputs and outputs. Digital data I/O is available via RCA phono or optical connectors to the CS8416 and CS8406. 6 pre-defined board setup options are selectable using a 6-position DIP switch.

598-1500-ND (CDB42438) **432.43**

CDB4245 Evaluation Board

This evaluation board is an excellent means for evaluating the CS4245 CODEC. Evaluation requires an analog/digital signal source/analyzer, and power supplies. A Windows® PC compatible computer must be used to evaluate the CS4245. RCA phono jacks are provided for the CS4245 analog inputs and outputs. Digital data I/O is available via RCA phono or optical connectors to the CS8416 and CS8406.

598-1501-ND (CDB4245) **432.43**

CDB42518 Evaluation Board

This demonstration board is an excellent means for evaluating the CS42518/16 family of highly integrated multi-channel CODEC-S/PDIF receivers. Evaluation requires an analog/digital signal source and analyzer, a Windows® compatible computer, and power supplies. RCA phono jacks are provided for the CS5361 analog inputs and CS42518 analog inputs and outputs. Digital data I/O is available via RCA phono jacks or optical connectors to/from the CS42518 and CS8406.

598-1502-ND (CDB42518) **324.32**

CDB42528 Evaluation Board

This demonstration board is an excellent means for evaluating the CS42528/26 family of highly integrated multi-channel CODEC-S/PDIF receivers. Evaluation requires an analog/digital signal source and analyzer, a Windows® compatible computer, and power supplies. RCA phono jacks are provided for the CS5361 analog inputs and CS42528 analog inputs and outputs. Digital data I/O is available via RCA phono jacks or optical connectors to/from the CS42528 and CS8406.

598-1503-ND (CDB42528) **324.32**

CDB42L52 Evaluation Board

Using this evaluation board is an ideal way to evaluate the CS42L52 CODEC. Use of the board requires an analog/digital signal source, an analyzer and power supplies. A Windows® PC compatible computer is also needed in order to configure the CS42L52 and the board functionality. 1/8th inch audio jacks are provided for the CS42L52 analog inputs and HP/Line outputs. Speaker driver outputs are via Banana jacks. Digital data I/O connections are via RCA phono or optical connectors to the CS8416 and CS8406 (S/PDIF Rx and Tx).

598-1505-ND (CDB42L52) **535.54**

(Continued)

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over €65! All prices in euro and include duties. (EU2011-EN) 787

CRD42L52 Reference Design and Peripheral Driver Board

In addition to providing a reference for an ultra small layout design, the purpose of the CRD42L52 is to allow a quick and easy evaluation of the CS42L52 low power stereo CODEC. Two 1/8th inch stereo jacks provide an interface for analog line-level input and headphone-level output connections to the CS42L52. Stereo differential PWM speaker outputs from the C42L52 can be monitored on a pair of screw terminals. The control port and serial audio interfaces are accessible via the I/O stake header used to attach the CRD42L52 to the CDB42LDB1.

598-1580-ND (CRD42L52) **316.32**

CDB42L55 Evaluation Board

This is the ideal evaluation platform solution to test and evaluate the CS42L55. Use of the board requires an analog or digital signal source, an analyzer, power supplies, and a Windows® PC compatible computer. RCA connectors are provided for CS42L55 analog inputs and HP/Line outputs. A 1/8th inch audio jack is provided for headphone stereo out. Digital I/O connectors are available via RCA phono or optical connectors to the CS8416 and CS8406 (S/PDIF Rx and Tx).

598-1506-ND (CDB42L55) **450.45**

CDB42L56 Evaluation Board

The CDB42L56 Evaluation Board is 24-bit, Ultra Low Power Stereo CODEC with Class H Headphone Amp.

598-1507-ND (CDB42L56) **128.13**

CDB42L73 Evaluation Board

The CDB42L73 board is a dedicated platform for testing and evaluating the CS42L73, an ultralow power mobile audio and telephony CODEC. To allow comprehensive testing of CS42L73 features and performance, extensive hardware and software configurable options are available on the CDB42L73.

598-1807-ND (CDB42L73) **965.97**

CDB42LDB1 Peripheral Driver Board

The CDB42LDB1 is a peripheral driver board provides clock/data, control logic and power supply to CRD42Lxx. Digital data is transmitted and received via S/PDIF optical and RCA connectors. The CRD42Lxx can be programmed by using the Windows® compatible FlexGUI software provided. Power is derived from three AAA batteries or from an external supply on the CDB42LDB1 driver board and is routed to the CRD42Lxx via the I/O stake header.

598-1508-ND (CDB42LDB1) **192.19**

CDB42448 Evaluation Board

This evaluation board is an excellent means for evaluating the CS42448 CODEC. Evaluation requires an analog/digital signal source/analyzer, and power supplies. A Windows® PC compatible computer must be used to evaluate the CS42448. RCA phono jacks are provided for the CS42448 analog inputs and outputs. Digital data I/O is available via RCA phono or optical connectors to the CS8416 and CS8406.

598-1151-ND (CDB42448) **432.43**

CDB4270 Evaluation Board

Using the CDB4270 is an excellent way to evaluate the CS4270 CODEC. Other equipment required includes analog/digital audio sources/analyzer, a 5V power supply and a Windows® compatible PC for the GUI. RCA jacks are provided for the analog audio inputs and outputs. Digital S/PDIF transmit or receive data I/O is available via either RCA jacks or optical connectors.

598-1002-ND (CDB4270) **324.32**

CDB470XX Evaluation Boards

The CS470xx family is a new generation of audio system-on-chip (ASOC) processors targeted at high fidelity, cost sensitive designs. Derived from the highly successful family, the CS470xx further simplifies system design and reduces total system cost by integrating the S/PDIF Rx, S/PDIF Tx, analog inputs, analog outputs, and SCRs. **Applications:** • Automotive head units and onboard amplifiers • Automotive Processors and Automotive Integration Hubs • Digital TV • MP3 Docking Stations • AVR and DVD RX • DSP Controlled Speakers

598-1534-ND (CDB470XD-DC24) – 2-Channel ADC, 4-Channel DAC **350.35**
598-1535-ND (CDB470XD-DC28) – 2-Channel ADC, 8-Channel DAC **350.35**
598-1536-ND (CDB470XD-DC48) – 4-Channel ADC, 8-Channel DAC **350.35**
598-1537-ND (CDB470XS-DC24) – 2-Channel ADC, 4-Channel DAC **350.35**
598-1538-ND (CDB470XS-DC28) – 2-Channel ADC, 8-Channel DAC **350.35**
598-1539-ND (CDB470XS-DC48) – 4-Channel ADC, 8-Channel DAC **350.35**

Analog-to-Digital Converters



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Audio Analog to Digital Converters			
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 101dB dynamic range, sample rates to 200kHz, 16-TSSOP	598-1081-5-ND	6.01 4.93	CS5340-CZZ
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 101dB dynamic range, sample rates to 200kHz, 16-TSSOP	598-1686-ND	7.21 5.91	CS5340-DZZ
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 105dB dynamic range, sample rates to 200kHz, 16-TSSOP	598-1082-5-ND	7.39 6.06	CS5341-CZZ
Multi-bit Delta-Sigma, 24-bit conversion, 105dB dynamic range, sample rates to 200kHz, 16-TSSOP	598-1688-ND	7.39 6.06	CS5342-CZZ
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 108dB dynamic range, sample rates to 204kHz, 24-TSSOP	598-1693-ND	10.99 9.90	CS5351-DZZ
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 108dB dynamic range, sample rates to 204kHz, 24-TSSOP	598-1085-5-ND	9.91 8.81	CS5351-KZZ
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 114dB dynamic range, sample rates to 204kHz, 24-TSSOP	598-1695-ND	11.72 9.86	CS5361-DZZ
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 114dB dynamic range, sample rates to 204kHz, 24-SOIC	598-1086-5-ND	11.09 9.99	CS5361-KSZ
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 114dB dynamic range, sample rates to 204kHz, 24-TSSOP	598-1087-5-ND	11.09 9.99	CS5361-KZZ
4-ch., multi-bit Delta-Sigma, 24-bit conversion, 114dB dynamic range, sample rates to 216kHz, I²C/SPI™ control, 48-LQFP	598-1088-ND	10.15 8.54	CS5364-CQZ
4-ch., multi-bit Delta-Sigma, 24-bit conversion, 114dB dynamic range, sample rates to 216kHz, I²C/SPI™ control, 48-LQFP	598-1697-ND	12.17 10.24	CS5364-DQZ
6-ch., multi-bit Delta-Sigma, 24-bit conversion, 114dB dynamic range, sample rates to 216kHz, I²C/SPI™ control, 48-LQFP	598-1089-ND	14.92 12.55	CS5366-CQZ
6-ch., multi-bit Delta-Sigma, 24-bit conversion, 114dB dynamic range, sample rates to 216kHz, I²C/SPI™ control, 48-LQFP	598-1698-ND	16.27 13.84	CS5366-DQZ
8-ch., multi-bit Delta-Sigma, 24-bit conversion, 114dB dynamic range, sample rates to 216kHz, I²C/SPI™ control, 48-LQFP	598-1090-ND	17.70 15.05	CS5368-CQZ

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 120dB dynamic range, sample rates to 192kHz, 24-SOIC	598-1091-5-ND	25.80 21.79	CS5381-KSZ
2-channel, multi-bit Delta-Sigma, 24-bit conversion, 120dB dynamic range, sample rates to 192kHz, 24-TSSOP	598-1092-5-ND	25.80 21.79	CS5381-KZZ
2-ch., multi-bit Delta-Sigma, 24-bit conversion, 98dB dynamic range, sample rates to 108kHz, I²C control, 10-TSSOP	598-1189-ND	3.36 2.71	CS5343-CZZ
2-ch., multi-bit Delta-Sigma, 24-bit conversion, 98dB dynamic range, sample rates to 108kHz, I²C control, 10-TSSOP	598-1689-ND	5.33 4.45	CS5343-DZZ
Multi-bit Delta-Sigma, 24-bit conversion, 98dB dynamic range, sample rates to 108kHz, 10-TSSOP	598-1190-ND	3.36 2.71	CS5344-CZZ
Multi-bit Delta-Sigma, 24-bit conversion, 104dB dynamic range, sample rates to 200kHz, 48-LQFP	598-1083-ND	6.79 6.04	CS5345-CQZ
Multi-bit Delta-Sigma, 24-bit conversion, 104dB dynamic range, sample rates to 200kHz, 48-LQFP	598-1691-ND	8.15 7.25	CS5345-DQZ
Multi-bit Delta-Sigma, 24-bit conversion, 103dB dynamic range, sample rates to 200kHz, 48-LQFP	598-1692-ND	4.48 3.61	CS5346-CQZ
98dB, 96kHz, Stereo AD, 24-Bit, Low Power, 32-QFN	598-1191-ND	5.14 4.29	CS53L21-CNZ

Industrial Analog to Digital Converters

16-bit, 100Sps update rate, very low power consumption, single channel differential input, flexible serial output port, 20-SOIC	598-1098-5-ND	20.27 17.12	CS5507-ASZ
20-bit, 100Sps update rate, very low power consumption, single channel differential input, flexible serial output port, 20-SOIC	598-1099-5-ND	22.02 18.60	CS5508-BSZ
16-bit Delta-Sigma, differential input, up to 200Sps output word rate, ultra low power consumption, 16-SOIC	598-1100-5-ND	15.88 14.29	CS5509-ASZ
16-bit Delta-Sigma, differential input up to 326Sps output word rate, low power consumption, 8-SOIC	598-1705-ND	5.96 4.97	CS5511-ASZ
20-bit Delta-Sigma, differential input up to 326Sps output word rate, low power consumption, 8-SOIC	598-1707-ND	5.13 4.13	CS5513-BSZ
16-bit Delta-Sigma, 2-channel, scalable input span, three-wire serial interface port, eight selectable word rates up to 617Sps, single 5V supply, 20-SOIP	598-1103-5-ND	7.26 6.46	CS5521-ASZ
24-bit Delta-Sigma, 2-channel, scalable input span, three-wire serial interface port, eight selectable word rates up to 617Sps, single 5V supply, 20-SOIP	598-1104-5-ND	8.61 7.65	CS5522-ASZ
16-bit Delta-Sigma, 4-channel, scalable input span, three-wire serial interface port, eight selectable word rates up to 617Sps, single 5V supply, 24-SOIP	598-1105-5-ND	6.01 4.93	CS5523-ASZ
24-bit Delta-Sigma, 4-channel, scalable input span, three-wire serial interface port, eight selectable word rates upto 617Sps, single 5V supply, 24-SOIP	598-1106-5-ND	8.98 7.98	CS5524-ASZ
16-bit Delta-Sigma, single channel, multi-range, 4-bit output latch, three-wire serial interface, programmable output word rates, single +5V supply, 20-SOIP	598-1107-5-ND	6.88 6.12	CS5525-ASZ
20-bit Delta-Sigma, single channel, multi-range, 4-bit output latch, three-wire serial interface, programmable output word rates, single +5V supply, 20-SOIP	598-1108-5-ND	8.22 7.31	CS5526-BSZ
24-bit Delta-Sigma, 8-channel, scalable input span, three-wire serial interface port, eight selectable word rates up to 617Sps, single 5V supply, 24-SOIP	598-1109-5-ND	9.39 8.35	CS5528-ASZ
16-bit Delta-Sigma, single channel, eight digital filters, 6-bit output latch, three-wire serial interface port, single conversion settling time, single or dual supplies, 20-SOIP	598-1110-5-ND	7.10 6.31	CS5529-ASZ
24-bit Delta-Sigma, single channel, digital gain scaling up to 40X, three-wire serial interface port, selectable word rates, high dynamic range, 20-SOIP	598-1283-5-ND	5.31 4.36	CS-5530-ISZ
16-bit Delta-Sigma, 2-channel differential multiplexer, ultra-low noise PGA, three-wire serial interface, selectable word rates, 20-SOIP	598-1111-5-ND	10.34 9.19	CS5531-ASZ
24-bit Delta-Sigma, 2-channel differential multiplexer, ultra-low noise PGA, three-wire serial interface, selectable word rates, 20-SOIP	598-1112-5-ND	11.17 10.06	CS5532-ASZ
24-bit Delta-Sigma, 2-channel differential multiplexer, ultra-low noise PGA, three-wire serial interface, selectable word rates, 20-SOIP	598-1113-5-ND	11.84 9.96	CS5532-BSZ
16-bit Delta-Sigma, 4-channel differential multiplexer, ultra-low noise PGA, three-wire serial interface, selectable word rates, 24-SOIP	598-1114-5-ND	10.66 9.48	CS5533-ASZ
24-bit Delta-Sigma, 4-ch. diff. multiplexer, ultra-low noise PGA, three-wire serial interface, selectable word rates, 24-SOIP	598-1115-5-ND	11.65 10.49	CS5534-ASZ
24-bit Delta-Sigma, 4-ch. diff. multiplexer, ultra-low noise PGA, three-wire serial interface, selectable word rates, 24-SOIP	598-1116-5-ND	15.42 13.88	CS5534-BSZ
24-bit Delta-Sigma, 2-ch. diff. multiplexer, fixed digital filter, simple serial interface, single +3.0V supply, 16-SOIP	598-1117-5-ND	7.96 7.08	CS5540-ASZ
2-Channel, low-cost A/D Converter for Electronic Weight-Scale Applications, 24-SOIP	598-1119-5-ND	3.64 2.92	CS5550-ISZ
24-bit Delta-Sigma, differential analog input, high throughput, 20uS conversion time, 110dB signal to noise, 24-SOIP	598-1265-5-ND	14.56 13.10	CS5560-ISZ
24-bit Delta-Sigma, single-channel, differential analog input, 200uS conversion time, three-wire serial interface, 24-SOIP	598-1269-5-ND	11.17 10.06	CS5566-ISZ
16-bit Delta-Sigma, single-channel, single-ended analog input, 10uS conversion time, 3 or 4-wire serial interface, 24-SOIP	598-1266-5-ND	17.72 15.95	CS5571-ISZ
16-bit Delta-Sigma, single-channel, single-ended analog, input analog input, 5uS conversion time, 3 or 4-wire serial interface, 24-SOIP	598-1272-5-ND	11.97 10.78	CS5581-ISZ

CDB5381 Evaluation Board

The CDB5381 evaluation board is an excellent means for quickly evaluating the CS5381 24-bit, stereo audio A/D converter. Evaluation requires a digital signal analyzer, an analog signal source, and a power supply. Also included is a CS8406 digital audio interface transmitter which generates S/PDIF and EIAJ-340 compatible audio data. The digital audio data is available via RCA phono and optical connectors. **Features:** • Demonstrates recommended layout and grounding arrangements • CS8406 generates S/PDIF and EIAJ-340 compatible digital audio

598-1008-ND (CDB5381) **324.32**

CDB5529 Evaluation Board and Software

The CDB5529 is a tool designed to evaluate the performance of the CS5529 16-bit Analog-to-Digital Converter (ADC). The board includes an LT1019 voltage reference, an 80C51 microcontroller, an RS232 driver/receiver and firmware. The 8051 controls the serial communication between the evaluation board and the PC via the firmware, enabling quick and easy access to all of the CS5529's registers. The CDB5529 also includes software for Time Domain Analysis, Histogram Analysis and Frequency Domain Analysis. **Features:** • RS-232 Serial Communication with PC • On-Board 80C51 Microcontroller • On-Board Voltage Reference • Lab Windows/CVI™ Evaluation Software • Integrated RS-232 Test Mode

598-1015-ND (CDB5529) **421.17**

(Continued)

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.



CIRRUS LOGIC® Analog-to-Digital Converters (Cont.)

CDB5571 and CDK5571 Evaluation Boards

A versatile tool designed for evaluating the functionality and performance of the CS5571 ADC (Analog-to-Digital Converter). The SPI serial port on the CDB5571 evaluation board is configured in Master mode and will start transmitting data after power-up upon reset. This evaluation board is designed to connect to your data capture system or will interface to the CapturePlus™ II data acquisition system available from Cirrus Logic. The CS5571 delta-sigma ADC produces fully settled conversions to full specified accuracy at 100kSps. This ability to produce fully settled conversions for every sample makes it suitable for converting multiplexed input signals. To help evaluate this feature, includes two single-ended analog inputs multiplexed into the CS5571. The multiplexer can be switched at the CS5571 ADC sample speed and the ADC will produce fully settled conversion data for each input channel. All evaluation board functionality for evaluating the CS5571 ADC is accessed through the connector interface and board-level options.

598-1275-ND	(CDB5571)	81.45
598-1279-ND	(CDK5571) – CDB5571 with CapturePlus II System	367.00

CDB5560 and CDK5560 Evaluation Boards

A versatile tool designed for evaluating the functionality and performance of the CS5560 ADC (Analog-to-Digital Converter). The SPI serial port on the CDB5560 evaluation board is configured in Master mode and will start transmitting data after power-up upon reset. This evaluation board is designed to connect to your data capture system or will interface to the CapturePlus II data acquisition system available from Cirrus Logic. The CS5560 delta-sigma ADC produces fully settled conversions to full specified accuracy at 50kSps. All evaluation board functionality for evaluating the CS5560 ADC is accessed through the connector interface and board-level options.

598-1277-ND	(CDK5560) – CDB5560 with CapturePlus II System	367.00
--------------------	--	-------	---------------

CDB5368 Evaluation Board

An excellent means for quickly evaluating the CS5368 24-bit, 192kHz audio A/D converter. Evaluation requires only a digital signal analyzer, an analog signal source and a power supply. On-board DIP switches configure the CS5368 in Stand-Alone mode, avoiding the need for a PC. For Software-based device configuration, the Control Port mode is used by attaching a host PC to the Evaluation Board and executing the provided FlexGUI software.

598-1157-ND	(CDB5368)	378.38
--------------------	-----------	-------	---------------

CDB5340 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS5340 24-bit, stereo audio A/D converter. Evaluation requires a digital signal analyzer, an analog signal source, and a power supply. Also included is a CS8406 digital audio interface transmitter which generates S/PDIF, and EIAJ-340 compatible audio data. The digital audio data is available via RCA phono and optical connectors.

598-1544-ND	(CDB5340)	324.32
--------------------	-----------	-------	---------------

CDB5341 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS5341 24-bit, stereo audio A/D converter. Evaluation requires a digital signal analyzer, an analog signal source, and a power supply. Also included is a CS8406 digital audio interface transmitter which generates S/PDIF, and EIAJ-340 compatible audio data. The digital audio data is available via RCA phono and optical connectors.

598-1545-ND	(CDB5341)	324.32
--------------------	-----------	-------	---------------

CDB5343 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS5343 24-bit, stereo audio A/D converter. Evaluation requires a digital signal analyzer, an analog source, and a power supply. Also included is a CS8406 digital audio interface transmitter that generates S/PDIF and EIAJ-340 compatible audio data. The digital audio data is available via RCA phono and optical connectors.

598-1156-ND	(CDB5343)	324.32
--------------------	-----------	-------	---------------

CDB5345 Evaluation Board

This evaluation board is an excellent means for evaluating the CS5345 ADC. Evaluation requires an analog signal source and analog/digital analyzer, and power supplies. A Windows® PC compatible computer must be used to evaluate the CS5345. RCA phono jacks are provided for the CS5345 analog inputs and outputs. Digital data input is available via RCA phono or optical connectors to the CS8406.

598-1780-ND	(CDB5345)	324.32
--------------------	-----------	-------	---------------

CDB5346 Evaluation Board

This evaluation board is an excellent means for evaluating the CS5346 A/D converter. Evaluation requires an analog signal source and analog/digital analyzer, and power supplies. A Windows compatible PC must be used to evaluate the CS5346. RCA phono jacks are provided for the CS5346 analog inputs and outputs. Digital data input is available via RCA phono or optical connectors to the CS8406.

598-1790-ND	(CDB5346)	324.32
--------------------	-----------	-------	---------------

CDB5351 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS5351 24-bit, stereo audio A/D converter. Evaluation requires a digital signal analyzer, an analog signal source, and a power supply. Also included is a CS8406 digital audio interface transmitter which generates S/PDIF, and EIAJ-340 compatible audio data. The digital audio data is available via RCA phono and optical connectors.

598-1781-ND	(CDB5351)	324.32
--------------------	-----------	-------	---------------

CDB5361 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS5361 24-bit, stereo audio A/D converter. Evaluation requires a digital signal analyzer, an analog signal source, and a power supply. Also included is a CS8406 digital audio interface transmitter which generates S/PDIF, and EIAJ-340 compatible audio data. The digital audio data is available via RCA phono and optical connectors.

598-1547-ND	(CDB5361)	378.38
--------------------	-----------	-------	---------------

CDB5366 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS5366 24-bit, 192kHz A/D converter. Evaluation requires only a digital signal analyzer, an analog signal source, and a power supply. On-board DIP switches configure the CS5366 in Stand-Alone mode, avoiding the need for a PC. For software-based device configuration, the Control Port mode is used by attaching a host PC to the evaluation board and executing the provided FlexGUI software.

598-1549-ND	(CDB5366)	378.38
--------------------	-----------	-------	---------------

CDB53L21 Evaluation Board

This evaluation board is an excellent means for evaluating the CS53L21 A/D converter. Evaluation requires an analog audio source, an analog/digital analyzer and power supplies. Optionally, a Windows® PC compatible computer may be used to evaluate the CS53L21 in Software-Mode. RCA phono jacks are provided for the CS53L21 analog inputs. 1/8th inch jacks are also available for microphone inputs. A digital data output is available from the CS8406 via RCA phono or optical connectors.

598-1550-ND	(CDB53L21)	337.34
--------------------	------------	-------	---------------

CDB5566 Evaluation Board

This is a versatile tool designed for evaluating the functionality and performance of the CS5566 A/D converter. The SPI serial port on the CDB5566 evaluation board is configured in Master mode and will start transmitting data after power-up upon reset. This evaluation board is designed to connect to your data capture system or will interface to the CapturePlus™ II data acquisition system available. All evaluation board functionality for evaluating the CS5566 ADC is accessed through the connector interface and board-level options.

598-1557-ND	(CDB5566)	81.45
--------------------	-----------	-------	--------------

CDBCAPTPL2 CapturePlus™ II System

The CapturePlus data acquisition system is a development tool that interfaces a Cirrus Logic evaluation board to a PC compatible computer. Digital data is collected in a high speed FIFO, then transmitted to the PC over a USB connection. Evaluation software is included to analyze the data and demonstrate the ADC's performance.

598-1570-ND	(CDBCAPTPL2)	295.30
--------------------	--------------	-------	---------------

CDB5581 and CDK5581 Evaluation Boards

This is a versatile tool designed for evaluating the functionality and performance of the CS5581 A/D converter. The SPI serial port on the CDB5581 evaluation board is configured in Master mode and will start transmitting data after power-up upon reset. This evaluation board is designed to connect to your data capture system or will interface to the CapturePlus™ II data acquisition system. All evaluation board functionality for evaluating the CS5581 ADC is accessed through the connector interface and board-level options.

598-1559-ND	(CDB5581)	81.45
598-1574-ND	(CDK5581) CDB5581 with CapturePlus II System	367.00

CRD5381 Reference Design

The CRD5381 was designed as a platform for easy evaluation of the jitter rejection, sample rate conversion, and time-division multiplexing capabilities of the CS8421 in the context of a A/D conversion system with an asynchronous decimation filter. The CRD5381 accepts four channels of balanced, analog audio input and provides four channels of PCM data output. The PCM data output is synchronous to the serial left-right clock and bit clock that the user supplies.

598-1592-ND	(CRD5381)	360.36
--------------------	-----------	-------	---------------

Digital-to-Analog Converters



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
14-bit Delta-Sigma, stereo, 98dB dynamic range, I²C/SPI™ control, low power, 32-QFN	598-1187-ND	4.85 4.05	CS43L21-CN2
Low power, stereo DAC with headphone, and speaker amps, 40-QFN	598-1650-ND	5.12 4.27	CS43L22-CN2
Low voltage, stereo DAC with headphone amp, 1.8V ~ 3.3V, 24-TSSOP	598-1651-ND	6.85 6.10	CS43L42-KZ2
16-bit Delta-Sigma, stereo, up to 100kHz sample rate, 96dB dynamic range, I²S control, filtered line-level outputs, single +5 power supply, 8-SOIC	598-1631-ND	2.85 2.29	CS4334-DS2
16-bit Delta-Sigma, stereo, up to 96kHz sample rate, 96dB dynamic range, I²S control, filtered line-level outputs, single +5V supply, 8-SOIC	598-1046-5-ND	2.38 1.91	CS4334-KSZ
16-bit Delta-Sigma, stereo, up to 96kHz sample rate, 96dB dynamic range, left justified control, filtered line-level outputs, single +5V supply, 8-SOIC	598-1047-5-ND	2.38 1.91	CS4335-KSZ
16-bit Delta-Sigma, stereo, up to 96kHz sample rate, 96dB dynamic range, right justified control, filtered line-level outputs, single +5V supply, 8-SOIC	598-1048-5-ND	2.38 1.91	CS4338-KSZ
24-bit Delta-Sigma, stereo, up to 96kHz sample rate, 101dB dynamic range, Popguard Technology, Not recommended for new designs, 16-TSSOP	598-1049-5-ND	4.13 3.45	CS4340-CZ2
24-bit Delta-Sigma, stereo, up to 96kHz sample rate, digital volume control, 101dB dynamic range, on-chip digital de-emphasis, Popguard Technology, 16-TSSOP	598-1050-5-ND	4.54 3.79	CS4341-CZ2
24-bit Delta-Sigma, stereo, up to 192kHz sample rate, digital volume control, 101dB dynamic range, on-chip digital de-emphasis, 16-SOIC	598-1633-ND	5.24 4.37	CS4341A-KSZ
24-bit Delta-Sigma, stereo, up to 192kHz sample rate, 105dB dynamic range, filtered line-level outputs, on-chip digital de-emphasis, 10-TSSOP	598-1051-5-ND	2.42 1.95	CS4344-CZ2
24-bit Delta-Sigma, stereo, up to 192kHz sample rate, 105dB dynamic range, filtered line-level outputs, on-chip digital de-emphasis, 10-TSSOP	598-1634-ND	2.91 2.35	CS4344-DZ2
24-bit Delta-Sigma, stereo, up to 192kHz sample rate, 105dB dynamic range, left justified control, filtered line-level outputs, on-chip digital de-emphasis, 10-TSSOP	598-1052-5-ND	2.42 1.95	CS4345-CZ2
16-bit Delta-Sigma, stereo, up to 192kHz sample rate, 105dB dynamic range, right justified control, filtered line-level outputs, on-chip digital de-emphasis, 10-TSSOP	598-1054-5-ND	2.42 1.95	CS4348-CZ2
24-bit Delta-Sigma, up to 192kHz sample rate, 101dB dynamic range, Popguard® Technology, SPI™ and I²C® modes, 24-TSSOP	598-1636-ND	3.25 2.62	CS4349-CZ2
192kHz, stereo DAC modes with integrated PLL, SPI™ and I²C® 24-TSSOP	598-1184-5-ND	6.25 5.56	CS4350-DZ2
24-bit Delta-Sigma, stereo, up to 192kHz sample rate, 112dB dynamic range, on-chip 2Vrms line-level driver, digital volume control, Popguard Technology, 20-TSSOP	598-1055-5-ND	3.70 2.98	CS4351-CZ2
24-bit Delta-Sigma, stereo, up to 192kHz sample rate, 106dB dynamic range, 2Vrms line output, 3.3V 24-QFN	598-1640-ND	3.03 2.44	CS4353-CN2
24-bit Delta-Sigma, 6-channel, up to 192kHz sample rate, 102dB dynamic range, digital volume control, digital de-emphasis, Popguard Technology, 28-TSSOP	598-1056-5-ND	10.55 9.38	CS4360-DZ2

(Continued)

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over €65! All prices in euro and include duties. (EU2011-EN) 789



Digital-to-Analog Converters (Cont.)



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
24-bit Delta-Sigma, 6-channel, up to 200kHz sample rate, 102dB dynamic range, digital volume control, digital de-emphasis, Popguard® Technology, 28-TSSOP	598-1642-ND	8.37 7.44	CS4360-KZZ
24-bit Delta-Sigma, 6-channel, up to 192kHz sample rate, 103dB dynamic range, output mute control, digital de-emphasis, filtered line-level outputs, Popguard® Technology, 20-TSSOP	598-1057-5-ND	4.21 3.39	CS4361-CZZ
24-bit 6-channel, up to 192kHz sample rate, 114dB dynamic range, volume control, matched PCM and DSD Analog output levels, 48-LQFP	598-1644-ND	12.25 11.03	CS4362-KQZ
24-bit Delta-Sigma, 6-channel, up to 192kHz sample rate, 114dB dynamic range, direct stream digital mode, volume control, matched PCM and DSD Analog output levels, 48-LQFP	598-1058-ND	11.01 9.91	CS4362A-CQZ
24-bit Delta-Sigma, 6-channel, up to 192kHz sample rate, 103dB dynamic range, Direct Stream Digital® mode, volume control, TDM serial interface, ATAPI channel mixing, 48-LQFP	598-1059-ND	4.48 3.61	CS4364-CQZ
24-bit Delta-Sigma, 6-channel, up to 192kHz sample rate, 114dB dynamic range, Direct Stream Digital® mode, volume control, matched PCM and DSD analog audio outputs, 48-LQFP	598-1060-ND	5.00 4.02	CS4365-CQZ
24-bit Delta-Sigma, 8-channel, up to 192kHz sample rate, 103dB dynamic range, Direct Stream Digital® mode, volume control, ATAPI channel mixing, 48-LQFP	598-1062-ND	5.19 4.26	CS4384-CQZ
24-bit Delta-Sigma, 8-channel, up to 192kHz sample rate, 114dB dynamic range, Direct Stream Digital® mode, volume control, matched PCM and DSD analog audio outputs, 48-LQFP	598-1063-ND	5.77 4.73	CS4385-CQZ
24-bit Delta-Sigma, 8-channel, up to 192kHz sample rate, 114dB dynamic range, Direct Stream Digital® mode, volume control, matched PCM and DSD analog audio outputs, 48-LQFP	598-1649-ND	6.93 5.69	CS4385-DQZ
24-bit Delta-Sigma, stereo, up to 192kHz sample rate, 108dB dynamic range, Not recommended for new designs, 20-TSSOP	598-1064-5-ND	5.80 5.16	CS4391A-KZZ
24-bit Delta-Sigma, stereo, up to 192kHz sample rate, 114dB dynamic range, Direct Stream Digital® mode, volume control, single +5V supply, ATAPI mixing functions, 20-TSSOP	598-1065-5-ND	8.99 8.00	CS4392-KZZ
Up to 24-bit Delta-Sigma, up to 192kHz sample rate, PCM and DSD inputs, 120dB dynamic range, external muting control, volume control, stand-alone or I ² C/SPI control, 28-TSSOP	598-1067-5-ND	10.09 9.09	CS4398-CZZ
Up to 24-bit Delta-Sigma, up to 192kHz sample rate, 109dB dynamic range, integrated PLL, muting control for individual channels, digital volume control, I ² C/SPI control, ATAPI mixing, 24-TSSOP	598-1185-5-ND	5.77 4.81	CS4350-CZZ
24-bit Delta-Sigma, up to 192kHz sample rate, 106dB (A-wt) dynamic range, integrated line driver, 2Vrms line-level output, stereo mute, analog low-pass filter, Popguard Technology, 20-TSSOP	598-1186-5-ND	2.58 2.08	CS4352-CZZ
24-bit I ² S Input, up to 192kHz sample rate, 101dB (A-wt) dynamic range, advanced multi-bit Delta-Sigma Modulator, 14-SOIC	598-1808-ND	2.58 2.08	CS4354-CSZ

CDB4398 Evaluation Board

An excellent means for quickly evaluating the CS4398 24-bit, high performance stereo D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4398 (stand alone operation is also available) and a power supply. Analog line-level outputs are provided via RCA phono jacks and balanced XLR. The CS8414 digital audio receiver IC provides the system timing necessary to operate the Digital-to-Analog converter and will accept S/PDIF, and EIAJ-340-compatible audio data. The evaluation board may also be configured to accept external timing and data signals for operation in a user application during system development.

598-1155-ND (CDB4398) 378.38

CDB4334 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4334 family of 24-bit, stereo D/A converters. Evaluation requires an analog signal analyzer, a digital signal source and a power supply. Analog outputs are provided via RCA connectors for both channels.

598-1510-ND (CDB4334) 378.38

CDB4350 Evaluation Board

This evaluation board is an excellent platform for quickly evaluating the CS4350 24-bit, stereo D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4350 and a power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1517-ND (CDB4350) 554.95

CDB4351 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4351 24-bit, high performance stereo D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4351 and a power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1152-ND (CDB4351) 324.32

CDB4352 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4352 24-bit, high performance stereo D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, and a power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1518-ND (CDB4352) 324.32

CDB4353 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4353 24-bit, high performance stereo D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, and a +3.3V power supply. Analog line-level outputs are provided via RCA phono jacks. The CDB4353 is controlled by switches to select the digital signal source and configuration options for the CS4353. Current sense resistors allow for easy power calculations during system development.

598-1519-ND (CDB4353) 324.32

CDB4362A Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4362A 24-bit, 6-channel D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4362A, and a power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1521-ND (CDB4362A) 378.38

CDB4365 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4365 24-bit, 6-channel D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4365 and a power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1779-ND (CDB4365) 378.38

CDB4382A Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4382A 24-bit, 8-channel D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4382A and a power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1524-ND (CDB4382A) 378.38

CDB4384 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4384 24-bit, 8-channel, single ended D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4384 and a power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1525-ND (CDB4384) 378.38

CDB4385 Evaluation Board

This evaluation board is an excellent means for quickly evaluating the CS4385 24-bit, 8-channel D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, a PC for controlling the CS4385 and a power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1154-ND (CDB4385) 378.38

CDB43L21 Evaluation Board

This evaluation board is an excellent means for evaluating the CS43L21 D/A converter. Evaluation requires a digital signal source, analog analyzer, and a power supply. RCA phono jacks are provided for the CS43L21 analog outputs. 1/8th inch jacks are also available for headphone output. Digital data input is available via RCA phono or optical connectors to the CS8415.

598-1282-ND (CDB43L21) 465.47

CDB43L22 Evaluation Board

Using this evaluation board is an ideal way to evaluate the CS43L22. Use of the board requires an analog/digital signal source, an analyzer and power supplies. A Windows® PC compatible computer is also required. 1/8th inch audio jacks are provided for the analog pass through inputs and HP/Line outputs. Two pairs of banana jacks and an additional pair of 1/8th inch audio jacks are provided to monitor the stereo differential speaker PWM output from the CS43L22. Digital input connections are via RCA phono or optical connectors to the CS8416 (S/PDIF Rx).

598-1529-ND (CDB43L22) 375.38

CS4354 Evaluation Board

The CDB4354 evaluation board is a dedicated platform designed to facilitate the evaluation of the CS4354 24-bit, stereo D/A converter. Evaluation requires an analog signal analyzer, a digital signal source, and a +5V power supply. Analog line-level outputs are provided via RCA phono jacks.

598-1809-ND (CDB4354) 324.32

Clock / Timers

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Clock Generator, Clock Multiplier/Jitter Reduced Frequency Synthesizer, 10-MSOP	598-1748-ND◆	7.72 6.87	CS2000CP-CZZ
Clock Generator, Clock Multiplier/Jitter Reduced Frequency Synthesizer, 10-MSOP	598-1749-ND◆	7.72 6.87	CS2000P-CZZ
Fractional-N Clock Multiplier/Jitter Reduction, I ² C® and SPI™, 10-MSOP	598-1750-ND◆	4.76 3.97	CS2100CP-CZZ
Fractional-N Clock Multiplier/Jitter Reduction, I ² C® and SPI™, 10-MSOP	598-1751-ND◆	4.76 3.97	CS2100P-CZZ
Fractional-N Frequency Synthesizer, I ² C® and SPI™, 10-MSOP	598-1752-ND◆	5.84 4.87	CS2200CP-CZZ
Fractional-N Frequency Synthesizer, I ² C® and SPI™, 10-MSOP	598-1753-ND◆	4.76 3.97	CS2200P-CZZ
Fractional-N Clock Multiplier with Internal LC Oscillator, 10-MSOP	598-1754-ND◆	4.76 3.97	CS2300CP-CZZ
Fractional-N Clock Multiplier with Internal LC Oscillator, 10-MSOP	598-1755-ND◆	4.76 3.97	CS2300P-CZZ
IC, General Purpose PLL Crystal, 10-TSSOP	598-1594-ND	4.54 3.79	CS220002-CZZ
IC Clock, Bandwidth 128Hz with 1x, 2x, 4x, and 8x multipliers, 10-TSSOP	598-1596-ND	4.54 3.79	CS230002-CZZ
IC Clock, Bandwidth 128Hz with 1x, 4x, 128x and 256x multipliers, 10-TSSOP	598-1597-ND	4.76 3.97	CS230003-CZZ
Evaluation Board, General Purpose PLL	598-1490-ND	22.53 —	CDB2000-DCCLKCP
Evaluation Board, General Purpose PLL	598-1491-ND	90.09 —	CDB2000-MB
Evaluation Board, General Purpose PLL DC	598-1492-ND	22.53 —	CDB2000-PC-CLK
Evaluation Board, General Purpose PLL DC	598-1493-ND	22.53 —	CDB2000-PC-LCO
Evaluation Board, General Purpose PLL	598-1494-ND	22.53 —	CDB2300-DC-LCO-CP
Evaluation Kit, General Purpose PLL LCO Kit	598-1572-ND	135.14 —	CDK2000-LCO

◆ RoHS Compliant

CDK2000-CLK Development Platform for CS2000 family

The CDK2000 is a flexible development platform designed to allow evaluation of all members of the CS2000, CS2100, CS2200, and CS2300 device sub-families. The on-board firmware handles all aspects of programming the DUT and transitioning it between modes. CDK Configuration Wizard software is available for real-time control of DUTs that can run in Control Panel mode.

598-1571-ND (CDK2000-CLK) 135.14

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.



CobraNet™

The CobraNet solution leverages the rapid developments in the computer networking industry to provide an increasingly cost effective connectivity solution for audio professionals worldwide. It's based on the highly integrated CS1810xx CobraNet Silicon Series, providing an interface in the form of a compact, low power, low cost module. Featuring 2, 8 or 16 simultaneous channels of digital audio input and output, the CM-2 is designed to be easily integrated into a wide variety of audio products such as signal processors, mixers, amplifiers, ceiling speakers and self-powered loudspeakers.

Features:

- 100BASE-TX Ethernet Interface - 100Mbps, full-duplex Ethernet, fully compliant with IEEE 802.3u Standard
- Secondary 100BASE-TX Ethernet Interface - redundant network connection for fault tolerance
- Quad synchronous serial output ports - capable of supplying and receiving 8 or 6 channels • TFTP support - firmware updates over the network • Low latency - selectable 1.33, 2.66 or 5.33ms across network • Status LEDs • Link, Activity and CobraNet conductor status for each Ethernet jack • Ability to send audio from any CobraNet interface to any other - unlimited addressing, unlimited capacity.

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Module CobraNet 4961 CM2 FB	598-1021-ND	126.13 —	CPB496122-CM2-FB
Module CobraNet 4961 CM2 MT	598-1022-ND	126.13 —	CPB496122-CM2-MT
2x2-Channel, 144-LQFP	598-1024-ND◆	18.27 15.43	CS181002-CQZ
8x8-Channel, 144-LQFP	598-1025-ND◆	20.05 16.94	CS181012-CQZ
16x16-Channel, 144-LQFP	598-1026-ND◆	22.45 18.96	CS181022-CQZ
Audio DSP CobraNet 144-LQFP	598-1071-ND◆	21.68 18.31	CS496102-CQZ
Audio DSP CobraNet 144-LQFP	598-1072-ND◆	23.44 19.80	CS496112-CQZ
Audio DSP CobraNet 144-LQFP	598-1073-ND◆	25.84 21.82	CS496122-CQZ

◆ RoHS Compliant

CS496122 Evaluation Board

The EV-2 kit provides a convenient means of evaluating CM-2 CobraNet modules. The EV-2 serves as a CobraNet interface reference design and can be used as a development platform for CobraNet products.

598-1007-ND Evaluation Board CS496122 1981.98

ARM® Processors

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
200MHz ARM9 Processor	598-1137-ND◆	18.67 15.77	EP9302-CQZ
166MHz ARM920T Processor	598-1250-ND◆	18.22 15.39	EP9301-IQZ
200MHz ARM9 Processor	598-1254-ND	24.07 20.33	EP9307-CR
200MHz ARM9 Processor	598-1256-ND◆	27.93 23.59	EP9307-IRZ
200MHz ARM9 Processor	598-1260-ND◆	33.75 28.50	EP9312-IBZ
200MHz ARM9 Processor	598-1261-ND	33.41 28.22	EP9315-CB
200MHz ARM9 Processor	598-1262-ND	33.25 29.93	EP9315-IB

◆ RoHS Compliant

Development Kit for ARM® Processors

Description	Digi-Key Part No.	Price Each	Cirrus Logic Part No.
Embedded Processor Development System for EP9312/EP9315	598-1144-ND	250.25	EDB9315A-Z



Digital Amplifiers/Power Technology



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
6-Channel Digital Amplifier Controller	598-1068-5-ND	8.18 7.27	CS44600-CQZ
8-Channel Digital Amplifier Controller	598-1070-ND	8.52 7.58	CS44800-CQZ
Multi-Bit A/D Real Time PSR Feedback	598-1069-5-ND	5.81 4.85	CS4461-CZZ
30W Quad Half-Bridge Digital Amplifier Power Stage, 48-QFN	598-1653-ND	6.25 5.56	CS4412A-CN2
Digital TV Amplifier, 30W with integrated ADC 102dB, 48-QFN	598-1264-ND	8.34 7.42	CS4525-CN2
2.7W Hybrid Class-D Audio Amplifier, 10-DFN	598-1799-ND	1.51 1.23	CS35L00-CN2

Sound Bar Reference Design

Complete reference design and turn-key manufacturing design kit includes: • IC data sheets • Application notes • Hardware user's manual • CS485xx family evaluation kit installer • Schematics, PCB layout files and BOMs • SiLabs 8051 family microcontroller source code • CRD-SB30Wx2 performance/test plots.

CRDSB30WX2-ND (CRDSB30WX2) 250.25

CRD44600-PH-FB Reference Design

The CRD44600-PH-FB PWM Amplifier demonstrates the CS44600, Cirrus' multi-channel pure digital PWM controller. This reference design implements a two-channel amplifier which delivers 100W per full-bridge channel into 8Ω loads using a single +50V supply (at 1% THD+N). A 155W unregulated linear power supply is used to power the CRD44600-PH-FB.

598-1023-ND (CRD44600-PH-FB)..... 629.73

CDB44800 Evaluation Board

This demonstration board is an excellent means for evaluating the CS44800 eight-channel Class D PWM modulator. Evaluation requires a digital audio signal source, analog audio analyzer, and power supplies. PWM output from the CS44800 is amplified using Philips TDA8939 power stage. The CS4461 is used for power supply rejection. A line out and headphone driver are provided. A comprehensive GUI provides control over the functions of the CS44800, CS4461, CS8416, and Philips TDA8939.

598-1532-ND (CDB44800)..... 621.62

CRD3511-Q1 Reference Design

This demonstrates the CS3511 high-efficiency Class-D amplifier. This reference design implements a two channel amplifier that delivers 9W per full bridge channel into 8Ω loads using a single +12V supply. Standard RCA phono jacks are provided to easily interface single-ended analog input signals with the evaluation board. A source impedance matching circuit on the board allows the full performance of the CS3511 to be tested with any available audio source. The audio power outputs are routed through an inductor/capacitor 2nd order low-pass filter (LPF) to remove high frequency components from the output signal, effectively converting it from digital to analog.

598-1577-ND (CRD3511-Q1)..... 44.04

CRD4412A Reference Design

This demonstrates the CS4412A digital amplifier power stage. This reference design is preconfigured as a two-channel full-bridge power stage which delivers 15W per channel into 8Ω loads using a single +18V supply. The PWM audio power outputs are routed through an inductor/capacitor 2nd order low pass filter (LPF) to remove high-frequency components from the output signal, effectively converting it from digital to analog.

598-1581-ND (CRD4412A) 449.45

CRD4525-Q1 Reference Design

This demonstrates the CS4525 digital PWM controller with integrated power stages. This reference design implements a two-channel amplifier that delivers 15W per full-bridge channel into 8Ω loads using a single +18V supply. The CRD4525-Q1 is powered by an included 80W switching mode power supply. The PWM audio power outputs are routed through an inductor/capacitor 2nd order low-pass filter (LPF) to remove high-frequency components from the output signal, effectively converting it from digital to analog.

598-1586-ND (CRD4525-Q1) 629.63

CDB35L00 Amplifier Demonstration Board

The CDB35L00-X4 demonstrates the CS35L00 high-efficiency Hybrid Class-D audio amplifier. This demonstration board implements a four-channel, quad amplifier system that delivers 2.7W per full-bridge channel into 4-Ω loads using a single +5V supply. Contains four CS35L00 Hybrid Class-D Amplifiers.

598-1803-ND (CDB35L00)..... 390.39

CRD35L01 Amplifier Reference Design Kit

The CRD35L01 demonstrates the CS35L01 high-efficiency Hybrid Class-D audio amplifier. This reference design implements a single-channel amplifier that delivers 1.7W per full-bridge channel into 8-Ω loads using a single +5V supply. Four boards are provided in the kit.

598-1804-ND (CRD35L01)..... 83.08

CDB1500 High-Efficiency PFC Demonstration Board

The CDB1500-01 board demonstrates the performance of the CS1500 digital PFC controller with a 90 watt output at a link voltage of 400V.

Features: • Variable On Time, Variable Frequency, DCM PFC controller • Line Voltage Range: 90 ~ 260 VAC RMS • Efficiency: 97% @ 90W, 230 VAC • No-load Power Dissipation: <0.3W • Low Component Count

598-1805-ND (CDB1500) 100.95

CDB1600 High-Efficiency PFC Demonstration Board

The CDB1600 120W board demonstrates the performance of the CS1600 digital PFC controller as a stand-alone unit. This board is 95% efficient at full load, and has been tailored for use with a resonant second stage to power up to two T5 fluorescent lamps for a maximum output of 108W. A resonant second stage driver efficiency of 94% is assumed for this application.

598-1806-ND (CDB1600-120W)..... 103.65

Infrared Echo Canceller

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Telephony Network Echo Suppression, 2-Channel, Full Duplex, 20-SOIC	598-1200-5-ND◆	13.97 12.58	CS6422-CSZ
Multi-Standard Infrared Transceiver, 1-Channel, 20-SSOP	598-1203-5-ND	9.36 8.33	CS8130-CS
Multi-Standard Infrared Transceiver, 1-Channel, 20-SSOP	598-1204-5-ND◆	9.36 8.33	CS8130-CSZ

◆ RoHS Compliant

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Free shipping on orders over €65! All prices in euro and include duties. (EU2011-EN) 791



Ethernet



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
LAN Controller, 3.3V, 100-LQFP	598-1127-ND	10.23 9.21	CS8900A-CQ3Z
LAN Controller, 5V, 100-LQFP	598-1128-ND	10.13 9.12	CS8900A-CQZ
LAN Controller, 3.3V, 100-LQFP	598-1129-ND	13.73 12.37	CS8900A-IQ3Z
LAN Controller, 5V, 100-LQFP	598-1130-ND	13.68 12.31	CS8900-IQZ
Crystal LAN 100 Base-X, 10 Base-T Transceiver and 100 Base-Fx Interface 1-Channel, 100-TQFP	598-1206-ND	15.48 13.93	CS8952-CQZ
Crystal LAN 100 Base-X, 10 Base-T Transceiver and 100 Base-Fx Interface 1-Channel, 100-TQFP	598-1208-ND	14.08 12.67	CS8952-IQZ

C Volume Control

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
8-Channel Analog Volume Control, 118dB, I ² C/SPI Control, 48-LQFP	598-1598-ND◆	19.92 17.93	CS3308-CQZ
Stereo Digital Volume Control, 127dB, Serial Control, 16-SOIC	598-1599-ND◆	10.68 9.50	CS3310-KSZ
8-Channel Analog Volume Control, 123dB, Single-Ended, 48-LQFP	598-1180-ND◆	23.12 19.53	CS3318-CQZ
Evaluation Board for CS3310, Stereo Digital Volume Control	598-1000-ND	378.38 —	CDB3310

◆ RoHS Compliant

CDB3308 Evaluation Board

This evaluation board is an excellent means for evaluating the CS3308 analog volume control. Evaluation requires an analog signal source/analyzer, power supplies, and a Windows® PC compatible computer. Standard RCA phono jacks are provided to easily interface external analog signals with the evaluation board. Each of the CS3308's inputs and outputs may be independently AC or DC coupled to their respective I/O connectors.

598-1496-ND (CDB3308) 378.38

CDB3318 Evaluation Board

This evaluation board is an excellent means for evaluating the CS3318 analog volume control. Evaluation requires an analog signal source/analyzer, power supplies, and a Windows® PC compatible computer. Standard RCA phono jacks are provided to easily interface external analog signals with the evaluation board. Each of the CS3318's inputs and outputs may be independently AC or DC coupled to their respective I/O connectors.

598-1497-ND (CDB3318) 378.38

Interface and Sample Rate Converters



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
T1/E1/J1 Octal line interface Unit, 160-LFBGA	598-1717-ND	20.93 17.80	CS61884-IRZ
3.3V and 5V Dual T1/E1 line interface Unit, 64-LQFP	598-1713-ND	20.96 17.70	CS61584A-IQ3Z
192kHz Digital Transmitter, 28-SOIC	598-1757-ND	5.53 4.92	CS8406-CSZ
192kHz Digital Transmitter, 28-TSSOP	598-1121-5-ND	5.53 4.92	CS8406-CZZ
192kHz Digital Transmitter, 28-TSSOP	598-1722-ND	6.92 6.15	CS8406-DZZ
192kHz Digital Receiver, 28-QFN	598-1723-ND	7.59 6.75	CS8416-CNZ
192kHz Digital Receiver, 28-SOIC	598-1123-5-ND	7.59 6.75	CS8416-CSZ
192kHz Digital Receiver, 28-TSSOP	598-1124-5-ND	7.59 6.75	CS8416-CZZ
192kHz Digital Receiver, 28-TSSOP	598-1726-ND	9.99 8.88	CS8416-DZZ
Digital-Audio Sample Rate, 28-SOIC	598-1125-5-ND	25.51 21.55	CS8420-CSZ
Digital-Audio Sample Rate, 28-SOIC	598-1729-ND	30.54 25.79	CS8420-DSZ
32-Bit Asynchronous Sample, 20-QFN	598-1730-ND	9.82 8.73	CS8421-CNZ
32-Bit Asynchronous Sample, 20-TSSOP	598-1126-5-ND	9.82 8.73	CS8421-CZZ
24-Bit 192kHz Asynchronous Sample, 32-QFN	598-1732-ND	12.17 10.96	CS8422-CNZ
96kHz Digital Audio Transceiver, 28-SOIC	598-1733-ND	12.64 11.37	CS8427-CSZ
96kHz Digital Audio Transceiver, 28-TSSOP	598-1735-ND	15.74 14.17	CS8427-DZZ

CDB8416 Evaluation Board

The CDB8416 is designed to allow easy evaluation of the CS8406 and CS8416. The board is designed for easy connection to an Audio Precision or other digital audio test system. Input and output data may be set for either balanced using the XLR connectors or unbalanced using the coax or optical connectors. Windows PC software provides a GUI to make configuration easy in software mode. The software communicates through the PC's parallel port to control the internal registers so that all the possible software modes of the CS8416 may be tested.

Features: • CS8416 Digital Audio Receiver • Receives and transmits AES/EBU, S/PDIF and EIAJ-340 compatible digital audio • Analog and Digital 3.3V Supply • 3.3 ~ 5.0V Logic Interface Supply • Operates in stand alone Hardware Mode or computer controlled Software Mode • Balanced and unbalanced inputs available.

598-1017-ND (CDB8416) 459.46

CDB8420 Evaluation Board

The CDB8420 is designed to allow rapid evaluation of the CS8420. Because of the high performance of the CS8420, the board is set up for easy connection to an Audio Precision or a Rhode and Schwarz test system. Currently available A/D and D/A converters are not adequate to test the full performance of the device. Input and output data may independently be set to either AES/EBU or S/PDIF in optical or coaxial physical formats.

598-1782-ND (CDB8420) 486.49

Evaluation Board for CS8421

The CDB8421 demonstration board is an excellent means for evaluating the CS8421 sample rate converter. System timing can be provided by the CS8421, by the CS8416 phase-locked to its S/PDIF input, by an I/O stake header or by an on-board oscillator. Digital I/O is available via coaxial (RCA) or optical connectors to the CS8416 and CS8406. All configuration control is handled from onboard switches.

Features: • CS8416 S/PDIF Digital Audio Receiver • CS8406 S/PDIF Digital Audio Transmitter • Header for External Serial Audio I/O • 3.3 ~ 5.0V Logic Interface • No software required to operate

598-1018-ND (CDB8421) 432.43

CDB8422 Evaluation Board

Using the CDB8422 is an ideal way to evaluate the CS8422. Use of the board requires a digital signal source, an analyzer, and a power source. S/PDIF and AES3/EBU input connections are made via RCA phono, optical, or XLR connectors from the CS8422. S/PDIF output connections are made via RCA phono or optical connectors from the CS8406.

598-1568-ND (CDB8422) 345.35

CDB8427 Evaluation Board

The CDB8427 is designed to allow rapid evaluation of the CS8427. The board is set up for easy connection to an Audio Precision or a Rhode and Schwarz test system. Input and output data formats may independently be set to either AES/EBU, or S/PDIF with either optical or coaxial physical format.

598-1783-ND (CDB8427) 378.38

Video Encoder



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
NTSC/PAL Digital Video Encoder, 48-TQFP	598-1682-ND	10.05 9.05	CS4954-CQZ

Op Amp



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Dual, Ultra Low Noise Op Amp, 3.6mA 125nVp-p	598-1141-5-ND	4.37 3.65	CS3002-ISZ
Dual, Ultra Low Noise Op Amp, 1.7mA 250nVp-p	598-1143-5-ND	4.37 3.65	CS3012-ISZ
Dual, Precision Low-Voltage, Low-Power Op Amp, 1.0mA, 8-SOIC	598-1146-1-ND†	3.82 3.12	CS3014-FSZR
	598-1146-2-ND†	3386.90/2,000	CS3014-FSZR
Dual, Low-Voltage, Low-Power, Op Amp, 2.1mA, 150dB, 8-SOIC	598-1170-5-ND	3.72 3.11	CS3004-FSZ
Dual, Low-Voltage, Low-Power, Op Amp, 1mA, 135dB, 8-SOIC	598-1178-5-ND	3.72 3.11	CS3014-FSZ

† Cut Tape † Tape and Reel

CDB30xx Prototype Board

The CDB30xx is a blank circuit board that provides a prototyping platform for the CS30xx series of operational amplifiers. The board has four different circuit sections. The board can be used intact or it can be separated into four separate smaller boards. The board is provided without components but a selection of Cirrus Logic operational amplifiers are provided as samples. The samples include two each of the CS3001, CS3002, CS3011, CS3012, CS3003, CS3004, CS3013, and CS3014 devices.

598-1495-ND (CDB30XX) 19.97

PFC Controllers



Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Digital PFC, 8-SOIC	598-1800-ND	2.31 1.87	CS1500-FSZ
PFC for electronic ballasts, 8-SOIC	598-1801-ND	2.31 1.87	CS1600-FSZ

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

Power Amplifier Modules

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
High voltage, high current, 10V/ μ S slew rate, 4-wire sense, +/-100V, 10A, 30-DIP	598-1412-ND	107.00 62.43	MP38CL
High voltage, high current, 10V/ μ S slew rate, 4-wire sense, +/-50V, 10A, 30-DIP	598-1414-ND	108.27 63.16	MP39CL
High voltage, high current, 10V/ μ S slew rate, 4-wire sense, +/-50V, 11A, 30-DIP	598-1415-ND	129.91 75.78	MP39CLA
Dual channel, high voltage, high current, 167V/ μ S slew rate, +/-200V, 15A, 42-DIP	598-1794-ND	154.50 118.93	MP103FC
High voltage, high current, 100 watt dissipation capability, +/-100V, 10A, 34-DIP	598-1407-ND	253.71 89.41	MP108FD
High voltage, high current, 500kHz power bandwidth, +/-50V, 15A, 34-DIP	598-1409-ND	257.27 94.96	MP111FD
High voltage, high speed with supply voltage boost, 50V - 350V out, 150mA, 42-DIP	598-1483-ND	120.06 100.99	MP400FC

◆ RoHS Compliant

Power Op Amps

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Wideband high power, class A/B output, 3KV/ μ S slew rate, high peak output current \pm 5A, 12-SIP	598-1793-ND	300.61 231.40	PA107DP
High voltage, high current, class A/B output, +/-28V, up to 5A peak, TO-3-8	598-1285-ND	111.35 62.42	PA01
Broadband, high output current, complementary collector output, +/-15V, 5A, TO-3-8	598-1286-ND	92.92 52.04	PA02
Broadband, high output current, complementary collector output, +/-15V, 5A, TO-3-8	598-1287-ND	120.84 67.70	PA02A
Broadband, high output current, complementary collector output, +/-15V, 5A, TO-3-8	598-1418-ND	247.21 138.50	PA02M
High voltage MOSFET, external sleep mode control, 50V/ μ S slew rate, 200V, 20A, MO-127-12	598-1420-ND	378.38 212.03	PA04
High voltage MOSFET, external sleep mode control, 50V/ μ S slew rate, 200V, 20A, MO-127-12	598-1290-ND	438.98 245.97	PA04A
High voltage MOSFET, external shutdown control, 100V/ μ S slew rate, 100V, 30A, MO-127-12	598-1291-ND	446.97 250.41	PA05
High voltage MOSFET, external shutdown control, 100V/ μ S slew rate, 100V, 30A, MO-127-12	598-1292-ND	534.95 479.61	PA05A
FET input, low bias current, thermal shutoff, class A/B output, 100V, 5A, TO-3-8	598-1293-ND	148.41 83.18	PA07
FET input, low bias current, thermal shutoff, class A/B output, 100V, 5A, TO-3-8	598-1421-ND	380.92 220.78	PA07M
FET input, low bias current, thermal shutoff, class A/B output, 100V, 5A, TO-3-8	598-1294-ND	192.91 108.10	PA07A
High voltage, programmable output current limit, low bias current, +/-150V, 200mA, TO-3-8	598-1296-ND	160.72 90.06	PA08
High voltage, programmable output current limit, low bias current, +/-150V, 200mA, TO-3-8	598-1297-ND	544.62 305.12	PA08M/883
4MHz gain bandwidth, class A/B output, high output current, +/-45V, 5A, TO-3-8	598-1301-ND	105.17 58.93	PA10
4MHz gain bandwidth, class A/B output, high output current, +/-50V, 5A, TO-3-8	598-1302-ND	135.38 75.82	PA10A
4MHz gain bandwidth, class A/B output, high output current, +/-45V, 5A, TO-3-8	598-1426-ND	435.62 245.84	PA10M/883
High voltage, very high output current, class A/B output, +/-45V, 15A, TO-3-8	598-1303-ND	118.74 68.63	PA12
High voltage, very high output current, class A/B output, +/-50V, 15A, TO-3-8	598-1304-ND	145.05 83.34	PA12A
High voltage, very high output current, class A/B output, +/-45V, 15A, TO-3-8	598-1427-ND	323.31 181.16	PA12M
High voltage, very high output current, high temperature, class A/B output, +/-45V, 15A, TO-3-8	598-1305-ND	408.47 228.92	PA12H
High voltage, very high output current, class A/B output, +/-45V, 15A, 12-SIP	598-1307-ND	150.37 137.93	PA13
High voltage, low quiescent current, MOSFET input and output, 200mA continuous and 350mA pulse currents into capacitive loads, +/-450V, 10-SIP (formed leads)	598-1741-ND	200.35 102.37	PA15FU
FET input, 350kHz power bandwidth, 20V/ μ S slew rate, A/B output, +/-19V, 5A, 12-SIP	598-1429-ND	141.50 72.28	PA16
MOSFET, high current, 50V/ μ S slew rate, boost voltage inputs, +/-50V, 100A, MO-127-12	598-1313-ND	772.97 433.07	PA50A
High voltage, high output current, common emitter class C output, +/-36V, 10A, TO-3-8	598-1434-ND	128.84 112.22	PA51
High voltage, high output current, common emitter class C output, +/-40V, 10A, TO-3-8	598-1314-ND	131.17 67.02	PA51A
High voltage, high output current, common emitter class C output, +/-36V, 10A, TO-3-8	598-1435-ND	233.10 127.24	PA51M
High voltage, high output current, common emitter class C output, +/-36V, 10A, TO-3-8	598-1315-ND	298.86 163.11	PA51M/883

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
MOSFET, high current, 50V/ μ S slew rate, boost voltage inputs, +/-100V, 80A, MO-127-12	598-1316-ND	669.91 375.35	PA52
MOSFET, high current, 50V/ μ S slew rate, boost voltage inputs, +/-100V, 80A, MO-127-12	598-1436-ND	783.84 740.30	PA52A
High output current, class C type output stage, low quiescent current, +/-45V, 10A, TO-3-8	598-1317-ND	115.32 58.93	PA61
High output current, class C type output stage, low quiescent current, +/-45V, 10A, TO-3-8	598-1318-ND	121.32 61.95	PA61A
High output current, class C type output stage, low quiescent current, +/-45V, 10A, TO-3-8	598-1437-ND	307.09 167.60	PA61M/883
High voltage, high output current, class C output, isolated case, +/-30V, 5A, TO-3-8	598-1319-ND	111.35 62.42	PA73
High voltage, high speed, over 200kHz power bandwidth, +/-175V, 150mA, 20-PSOP (SMT)	598-1351-ND	22.74 18.12	PA78DK
High voltage, 200V/ μ S slew rate, fully protected FET input, +/-150V, 50mA, TO-3-8	598-1324-ND	179.04 100.33	PA84
Ultra high voltage, MOSFET, 1140Vpp signal output, +/-600V, 75mA, MO-127-12	598-1329-ND	709.46 670.05	PA89
High voltage, MOSFET, high bandwidth, 1000V/ μ S slew rate, +/-225V, +/-200mA, 12-SIP	598-1337-ND	240.00 134.48	PA98
High voltage, MOSFET, high bandwidth, 1000V/ μ S slew rate, +/-225V, +/-200mA, 12-SIP	598-1450-ND	311.95 174.80	PA98A
Quad. power op amp, 1.1MHz, 1.5A per amp, thermal shutdown, +/-20V, MO-166-AB	598-1430-ND	16.94 13.51	PA162DK
High voltage, high current, 100 watt dissipation capability, +/-100V, 11A, 34-DIP	598-1408-ND	183.93 107.30	MP108FDA

◆ RoHS Compliant

High Voltage Power Op Amps

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Low quiescent current, MOSFET input and output, +/-225V, 3mA, TO-SIP	598-1428-ND	154.11 78.74	PA15FL
Low quiescent current, MOSFET input and output, +/-225V, 3mA, TO-SIP	598-1309-ND	160.36 86.62	PA15FLA
High output current, FET input, low bias current, low noise, +/-75V, 15mA, TO-3-8	598-1321-ND	170.81 91.05	PA81J
High output current, FET input, low bias current, low noise, +/-150V, 15mA, TO-3-8	598-1441-ND	188.83 105.81	PA82J
FET input, low bias current, low noise, class A/B output, +/-150V, 100mA, TO-3-8	598-1322-ND	193.22 110.76	PA83
FET input, low bias current, low noise, class A/B output, +/-150V, 100mA, TO-3-8	598-1442-ND	464.45 253.48	PA83M
FET input, low bias current, low noise, class A/B output, +/-150V, 100mA, TO-3-8	598-1443-ND	595.43 324.98	PA83M/883
High voltage, 600V/ μ S slew rate, FET input, wide supply voltage range, +/-150V, TO-3-8	598-1444-ND	232.79 130.42	PA84A
High voltage, 200V/ μ S slew rate, FET input, wide supply voltage range, +/-150V, TO-3-8	598-1446-ND	629.79 343.69	PA84M/883
MOSFET, 1000V/ μ S slew rate, high output current, +/-225V, 200mA, TO-3-8	598-1326-ND	240.00 134.48	PA85
MOSFET, 1000V/ μ S slew rate, high output current, +/-225V, 200mA, TO-3-8	598-1327-ND	285.59 160.04	PA85A
MOSFET, high output current, low bias current, +/-225V, 100mA, TO-3-8	598-1328-ND	216.22 121.14	PA88
High voltage, MOSFET amp, high output current, 450V, 100mA, TO-3-8	598-1447-ND	281.08 157.48	PA88A
Ultra high voltage, MOSFET op amp, programmable current limit, +/-600V, 75mA, MO-127-12	598-1448-ND	1024.81 574.17	PA89A
300V/ μ S slew rate, high current MOSFET output, +/-200V, 200mA, 12-SIP	598-1330-ND	164.87 92.36	PA90
300V/ μ S slew rate, high current MOSFET output, +/-225V, 200mA, 12-SIP	598-1331-ND	193.34 108.36	PA91
MOSFET, low quiescent current, high output current, +/-200V, 4A, 12-SIP	598-1332-ND	207.09 116.02	PA92
MOSFET, low quiescent current, high output current, +/-200V, 8A, 12-SIP	598-1333-ND	236.94 132.76	PA93
MOSFET, 500V/ μ S slew rate, high output current, +/-450V, 100mA, 8-SIP	598-1334-ND	201.92 113.16	PA94
MOSFET, low quiescent current, high output current, +/-450V, 100mA, 8-SIP	598-1335-ND	185.47 103.92	PA95
Small signal amplifier plus power booster, 250V/ μ S slew rate, 300V, 1.5A, TO-3-8	598-1449-ND	199.04 101.66	PA96CE
MOSFET, low quiescent current, high output current, +/-450V, 10mA, 7-SIP	598-1336-ND	166.20 85.14	PA97DR
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, 7-DDPAK	598-1354-ND	18.86 15.04	PA240CC
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, TO-220-7	598-1355-ND	28.30 15.04	PA240CX
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, TO-3-8	598-1356-ND	45.17 36.00	PA241CE
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, TO-3-8	598-1431-ND	60.08 47.89	PA241CEA
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, TO-3-8	598-1432-ND	117.43 93.59	PA241CEM
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, 24-PSOP	598-1357-ND	22.17 17.67	PA241DF
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, 10-SIP	598-1358-ND	45.17 36.00	PA241DW

◆ RoHS Compliant

(Continued)

Amplifiers

High Voltage Power Op Amps (Cont.)

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Monolithic MOS technology, low quiescent current, +/-175V, 120mA, 10-SIP	598-1397-ND	60.08 47.89	PA241DWA
High voltage power dual op amp, monolithic MOS technology, low quiescent current, +/-175V, 120mA, 24-PSOP	598-1359-ND	48.04 38.28	PA243DF

◆ RoHS Compliant

Power Dual Op Amps

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
High efficiency, high output current, low distortion, 40V, 2.5A, TO-3-8	598-1343-ND	64.50 51.41	PA74
High efficiency, high output current, low distortion, 40V, 3A, TO-3-8	598-1344-ND	69.19 55.14	PA74A
High efficiency, high output current, low distortion, 40V, 3A, TO-3-8	598-1345-ND	131.86 105.09	PA74M
High efficiency, high output current, low distortion, 40V, 2.5A, TO-3-8	598-1349-ND	64.50 51.41	PA76
High efficiency, high output current, low distortion, 40V, 3A, TO-3-8	598-1350-ND	69.14 55.11	PA76A
Wide bandwidth, high output current, low quiescent current, 40V, 1.5A, 7-DDPAK	598-1346-ND	10.43 8.32	PA75CC
Wide bandwidth, high output current, low quiescent current, 40V, 1.5A, TO-220-7	598-1347-ND	10.43 8.32	PA75CD
Wide bandwidth, high output current, low quiescent current, 40V, 1.5A, TO-220-7 (S)	598-1348-ND	11.41 9.09	PA75CX

◆ RoHS Compliant

Video Power Op Amps

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
150MHz gain bandwidth, power MOS output, 2000V/uS slew rate, +/-40V, 2A, TO-3-8	598-1298-ND	251.89 141.16	PA09
150MHz gain bandwidth, power MOS output, 2000V/uS slew rate, +/-40V, 2A, TO-3-8	598-1299-ND	294.72 165.15	PA09A
150MHz gain bandwidth, power MOS output, 2000V/uS slew rate, +/-40V, 2A, TO-3-8	598-1300-ND	627.57 351.61	PA09M
150MHz gain bandwidth, power MOS output, 2000V/uS slew rate, +/-40V, 2A, TO-3-8	598-1424-ND	804.56 450.80	PA09M/883
High voltage, high current, 900V/uS slew rate, MOS output, +/-40V, 5A, TO-3-8	598-1311-ND	331.11 185.49	PA119CE
High voltage, high current, 900V/uS slew rate, MOS output, +/-40V, 5A, TO-3-8	598-1312-ND	430.27 241.07	PA119CEA

◆ RoHS Compliant

Power Booster Amps

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
High voltage, 50V/uS slew rate, 160kHz power bandwidth, +/-100V, 2A, TO-3-8	598-1338-ND	123.67 69.31	PB50
High voltage, 50V/uS slew rate, 320kHz power bandwidth, +/-150V, 1.5A, 12-SIP	598-1339-ND	153.51 85.99	PB51
High voltage, 75V/uS slew rate, 320kHz power bandwidth, +/-150V, 2A, 12-SIP	598-1451-ND	153.51 85.99	PB58
High voltage, 75V/uS slew rate, 320kHz power bandwidth, +/-150V, 2A, TO-3-8	598-1341-ND	189.97 106.43	PB58A

◆ RoHS Compliant

Pulse Width Modulation Amps

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
200KHz, 3 protection circuits, sync or ext osc, 200Vs, 16Vcc, 20A, MO-127-12	598-1364-ND	726.67 407.15	SA12
H-bridge motor driver/amp, PWM, self-contained low/high side drive circuitry, 80Vs, 16Vcc, 15A, 12-Pin SIP	598-1365-ND	181.98 101.95	SA60
High voltage, high current, 2KW output capability, variable switching frequency, 100V, 20A, 58-Pin DIP	598-1416-ND	240.91 —	MSA240KC
High voltage, high current, 9KW output capability, variable switching frequency, 450V, 20A, 58-Pin DIP	598-1417-ND	287.78 —	MSA260KC
Full-bridge PWM amplifier, lowside and highside switches, 80V, 7A, TO-3-8	598-1454-ND	376.57 238.11	SA50CE
Fully integrated, 2 half-bridges, DC brush motor driver, 8.5V ~ 60V, 5A continuous, 64P Power QFP	598-1485-ND	17.86 8.54	SA57-IHZ
Fully integrated, 3 half-bridges, 3 phase brushless DC motor driver, 8.5V ~ 60V, 5A continuous, 64P Power QFP	598-1486-ND	22.47 11.94	SA306-IHZ
Fully integrated, 3 half-bridges, 3 phase brushless DC motor driver, 8.5V ~ 60V, 3A continuous, 64P Power QFP	598-1784-ND	11.51 9.93	SA303-IHZ
Fully integrated, 2 half-bridges, DC brush motor driver, 8.5V ~ 60V, 3A continuous, 64P Power QFP	598-1785-ND	9.44 8.10	SA53-IHZ
Full-bridge output, 5V ~ 40V, 5A continuous, 18-Pin DIP	598-1792-ND	521.75 —	SA09

◆ RoHS Compliant

Amplifier Accessories Sockets

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Socket, TO-3-8	598-1384-ND	18.80 15.00	MS03
Socket, 12-DIP	598-1386-ND	33.30 26.54	MS05

Description	Digi-Key Part No.	Pkg. Qty.	Price/Pkg.	Cirrus Logic Part No.
Pin Receptacle for .032 ~ .046 Diameter Pins	598-1383-ND	8	8.31	MS02
Pin Receptacle for .048 ~ .064 Diameter Pins	598-1385-ND	12	17.30	MS04
Mating Socket for .015 ~ .025 Diameter Pins	598-1387-ND	2	4.80	MS06
Pin Receptacle for .025 ~ .037 Diameter Pins	598-1478-ND	30	21.36	MS11

◆ RoHS Compliant

Heatsinks

Description	Digi-Key Part No.	Price Each 1 25	Cirrus Logic Part No.
Heatsink, TO-3	598-1367-ND	16.30 13.00	HS01
Heatsink, TO-3	598-1368-ND	18.55 14.79	HS02
Heatsink, TO-3	598-1369-ND	42.23 33.65	HS03
Heatsink, PDIP	598-1370-ND	46.41 36.99	HS06
Heatsink, TO-3	598-1371-ND	5.19 4.14	HS09
Heatsink, TO-220	598-1375-ND	1.63 1.29	HS22
Heatsink, Modular Package	598-1377-ND	109.57 87.32	HS26
Heatsink, TO-3	598-1472-ND	82.26 —	HS04
Heatsink, TO-3	598-1473-ND	59.28 —	HS13
Heatsink, PDIP	598-1474-ND	88.95 —	HS18
Heatsink, SIP	598-1475-ND	24.48 —	HS27
Heatsink, TO-220	598-1476-ND	43.79 —	HS29
Heatsink for DK and HQ Packages	598-1739-ND	5.14 4.34	HS33
Clamp, TO-220	598-1482-ND	1.72 —	CLAMP04

◆ RoHS Compliant

Thermal Washers



Description	Digi-Key Part No.	Pkg. Qty.	Price/Pkg.	Cirrus Logic Part No.
Thermal Washer, TO-3	598-1378-ND	10	9.87	TW03
Thermal Washer, PSIP	598-1379-ND	10	18.31	TW07
Thermal Washer, SIP	598-1382-ND	10	17.30	TW13
Thermal Washer, DIP	598-1479-ND	10	11.97	TW05
Thermal Washer, DIP	598-1480-ND	10	15.26	TW09
Thermal Washer, TO-220	598-1481-ND	10	11.14	TW14

Demonstration Boards

DB62 Demonstration Board for SA305EX

The DB62 is designed to demonstrate the capabilities of the SA305EX as a 3 phase brushless DC motor driver IC. The PWM inputs to the SA305 are controlled by an on-board microcontroller. The EVAL49 board is pre-wired for all required and recommended external components.

598-1394-ND (DB62) **215.61**

DB63R Demonstration Board for SA57-IHZ

The DB63R is designed to demonstrate the capabilities of the SA57 DC brush motor driver IC. This fully assembled demonstration allows the user to directly control the speed and direction of the motor. An onboard circuit controls the direction and provides four quadrant PWM signals to control the power outputs of the SA57. LEDs provide feedback for motor control status and fault indications. Provisions on the DB63R allow the user to bypass the onboard control circuit and directly interface with the SA57 motor driver.

598-1487-ND (DB63) **119.59**



Evaluation Kits

EK01
Evaluation Kit for SA01

This easy-to-use kit provides a platform for the evaluation of PWM amplifiers using the SA01 pin-out configuration. It can be used to analyze a multitude of standard or proprietary circuit configurations and is flexible enough to do most standard amplifier test configurations. The board is designed for surface mounting all components except the switching amplifier.

Note: Amplifier not included		
598-1455-ND	(EK01)	52.56

EK07
Evaluation Kit for SA07

This easy-to-use kit provides a platform for the evaluation of PWM amplifiers using the SA07 pin-out. With ample breadboarding areas it is flexible enough to analyze a multitude of standard or proprietary configurations. Critical connections for power supply bypassing, compensation and current limiting are pre-wired. Components not usually readily available in engineering labs are provided. External connection to the evaluation kit can be made via the terminals at the edge of the board. These terminal pads are suitable for standard banana jacks or direct soldering of wires.

Note: Amplifier not included		
598-1457-ND	(EK07)	74.63

EK09 Evaluation Kit for
TO-3 and MO-127 Packages

This kit provides a solid mechanical platform with good shielding and grounding to breadboard eight pin TO-3 packages or the MO-127 package with 0.060" pins. This kit is intended as an alternate for kits dedicated to specific amplifiers. Construction will involve surface mounting and 3D techniques. Holes are provided to mount standard banana and BNC connectors f.or I/O.

Note: Amplifier not included		
598-1389-ND	(EK09)	68.32

EK11
Evaluation Kit for PA91

This easy-to-use kit provides a platform for the evaluation of PWM amplifiers using the PA91 pin-out. With ample breadboarding areas it is flexible enough to analyze a multitude of standard or proprietary configurations. Critical connections for power supply bypassing, compensation and current limiting are pre-wired. Components not usually readily available in engineering labs are provided. External connection to the evaluation kit can be made via the terminals at the edge of the board. These terminal pads are suitable for standard banana jacks or direct soldering of wires.

Note: Amplifier not included		
598-1458-ND	(EK11)	42.04

EK13
Evaluation Kit for PA241DF

Fast and easy breadboarding of circuits using the PA241DF is possible with the EK13 evaluation board. The amplifier may be surface mounted directly to the PC board. The PA241DF is soldered to a 2-square inch area of foil on the PC board for heatsinking. This foil heatsink is connected to -Vs. Connections are provided for required power supply bypassing, phase compensation and a current limiting resistor. A large area for component mounting provides flexibility and makes a multitude of circuit configurations possible.

Note: Amplifier not included		
598-1459-ND	(EK13)	32.58

EK15
Evaluation Kit for SA08

This easy-to-use kit provides a platform for the evaluation of PWM amplifiers using the SA08 pin-out configuration. It can be used to analyze a multitude of standard or proprietary circuit configurations and is flexible enough to do most standard amplifier test configurations. Only components unique to the EK15 are provided with this kit.

Note: Amplifier not included		
598-1460-ND	(EK15)	160.81

EK16
Evaluation Kit for PA92/PA93

This easy-to-use kit provides a platform for the evaluation of linear power amplifiers circuits using the PA92/PA93 pin-out. With ample breadboarding areas it is flexible enough to analyze a multitude of standard or proprietary circuit configurations. Critical connections for power supply bypassing, compensation, and current limiting are pre-wired. Components not usually readily available in engineering labs are provided. External connection to the evaluation kit can be made via the terminals at the edge of the circuit board. These terminal pads are suitable for standard banana jacks or direct soldering of wires.

Note: Amplifier not included		
598-1390-ND	(EK16)	97.75

EK17
Evaluation Kit for SA12

This easy-to-use kit provides a platform for the evaluation of PWM amplifiers using the SA12 pin-out configuration. It can be used to analyze a multitude of standard or proprietary circuit configurations and is flexible enough to do most standard amplifier test configurations. Only components unique to the EK17 are provided with this kit.

Note: Amplifier not included		
598-1461-ND	(EK17)	129.49

EK19
Evaluation Kit for PA94/PA95

This easy-to-use kit provides a platform for the evaluation of linear power amplifier circuits using the PA94/PA95 pin-out. With ample breadboarding areas it is flexible enough to analyze a multitude of standard or proprietary configurations. Critical connections for power supply bypassing, compensation and current limiting are pre-wired. Components not usually readily available in engineering labs are provided. External connection to the evaluation kit can be made via the terminals at the edge of the board. These terminal pads are suitable for standard banana jacks or direct soldering of wires.

Note: Amplifier not included		
598-1462-ND	(EK19)	30.48

EK26
Evaluation Kit for PA60EU

Fast, easy breadboarding of circuits using the PA60EU are possible with the PB80 PC board. Mounting holes are provided and the provision for standard banana jacks simplifies connection and testing. The amplifier may be mounted horizontally or vertically. Components are labeled on both sides of the board for ease in probing.

Note: Amplifier not included		
598-1463-ND	(EK26)	23.13

EK27
Evaluation Kit for PA50

This easy-to-use kit provides a platform for the evaluation of linear power amplifier circuits using the PA50/PA52 pin-out. With ample breadboarding areas it is flexible enough to analyze a multitude of standard or proprietary configurations. Critical connections for power supply bypassing are pre-wired. Components not usually readily available in engineering labs are provided. External connection to the evaluation kit can be made via the terminal block and terminal pads at the edges of the circuit board. The terminal pads are suitable for standard banana jacks or direct soldering of wires.

Note: Amplifier not included		
598-1464-ND	(EK27)	198.76

EK29
Evaluation Kit for Power Booster

This easy-to-use kit provides a platform for the evaluation of the PB51 high voltage power boosters. The PB51 is designed most commonly with a small signal, general purpose op amp. However they can also be used without a driver amplifier. This kit can be used to analyze a multitude of standard or proprietary circuit configurations.

Note: Amplifier not included		
598-1466-ND	(EK29)	43.69

EK33
Evaluation Kit for PA75CX

Fast, easy breadboarding of circuits using PA75CX or PA35CX is possible with the EK33 PC board. Mounting holes are provided and the provision for standard banana jacks simplifies connection and testing. Components are labeled on both sides of the board for ease in probing. This kit is not suitable for PA75CC, PA75CD, PA35CC or PA35CD.

Note: Amplifier not included		
598-1467-ND	(EK33)	66.45

EK50
Evaluation Kit for PB50/PB58 Power Boosters

This easy-to-use kit provides a platform for the evaluation of the PB50 and PB58 high voltage power boosters. The PB50 and PB58 are designed most commonly in combination with a small signal, general purpose op amp. However, they can also be used to analyze a multitude of standard or proprietary circuit configurations.

Note: Amplifier not included		
598-1392-ND	(EK50)	53.25

EK56
Evaluation Kit for MSA240/MSA260

This fast, easy-to-use kit provides a platform for the evaluation of the PWM circuits using the MSA240KC/MSA260KC pin-out. With ample breadboarding area it is flexible enough to analyze a multitude of standard or proprietary circuit configurations. Critical connections for the power supply bypassing are pre-wired. Components not usually readily available in engineering labs are provided. External connection to the evaluation kit can be made via the terminal block and banana jacks at the edge of the circuit board.

Note: Amplifier not included		
598-1469-ND	(EK56)	160.67

(Continued)



EK57

Evaluation Kit for MP108FD/MP111FD

This fast, easy-to-use kit provides a platform for the evaluation of linear power amplifiers circuits using the MP108FD and MP111FD pin-out. With ample breadboarding area it is flexible enough to analyze a multitude of standard or proprietary circuit configurations. Critical connections for power supply bypassing are pre-wired. Components not usually readily available in engineering labs are provided. External connection to the evaluation kit can be made via the terminal block and banana jacks at the edges of the circuit board. The terminal pads are suitable for soldering standard banana jacks or direct wiring of wires. Additionally, banana jacks and a BNC connector can be inserted into the holes at the edge of the board and wired to the numbered terminal pads.

Note: Amplifier not included

598-1470-ND (EK57) 104.06

EK60

Evaluation Kit for PA78

The EK60 evaluation kit is designed to provide a convenient way to breadboard design ideas for the PA78EU power operational amplifiers. The EVAL60 evaluation board is pre-wired for all required and recommended external components including the ones for power supply bypassing, compensation and current limiting. The EVAL60 also includes a breadboard area for constructing your application circuit with provisions for a preamplifier to drive the PA78 inputs.

Note: Amplifier not included

598-1395-ND (EK60) 119.12

EK61

Evaluation Kit for PA78DK and PA79DK

Fast and easy breadboarding of circuits using the PA78DK or PA79DK is possible with the EK61 evaluation kit. The EK61 includes both the universal EVAL36 board and the EVAL61 substrate. The use of EVAL36 and EVAL61 allows for a large area of breadboarding space to work with while allowing a surface mount substrate for the PA78DK or PA79DK. The PA78DK or PA79DK amplifier may be surface mounted directly to the EVAL61, a thermally conductive but electrically isolated substrate. The PA78DK or PA79DK is soldered to a DUT foil footprint area the size of the heatslug. The metal substrate is cost effective and can allow the PA78DK or PA79DK to dissipate power up to the data sheet rating.

Note: Amplifier not included

598-1398-ND (EK61) 56.66

EK62

Evaluation Kit for SA305EX 3-Phase Motor Driver

The EK62 evaluation kit is designed to provide a convenient way to breadboard design ideas for the SA305EX. The PB119 evaluation board is pre-wired for all required external components including the ones for power supply bypassing and current sensing. The PB119 also includes a breadboard area for constructing your application circuit.

Note: Amplifier not included

598-1393-ND (EK62) 177.06

Precision Voltage References



Description	Digi-Key Part No.	Price Each 1	25	Cirrus Logic Part No.
±10V output, ±0.5mV accuracy, 14-DIP (ceramic)	598-1770-ND	82.78	63.72	VRE102C
+4.5V output, ±0.4mV accuracy, 14-DIP (ceramic)	598-1771-ND	83.69	64.42	VRE104C
+2.5V output, ±200µV accuracy, 20-LCC (ceramic)	598-1772-ND	87.36	—	VRE202C
+2.5V output, ±0.25mV accuracy, 8-SMT	598-1773-ND	74.30	57.20	VRE3025AS
+5V output, ±0.5mV accuracy, 8-SMT	598-1774-ND	64.91	49.97	VRE3050AS
+5V output, ±0.8mV accuracy, 8-SMT	598-1775-ND	39.80	30.64	VRE3050BS
+5V output, ±0.5mV accuracy, 8-SMT	598-1776-ND	64.91	49.97	VRE305AS
+10V output, ±2.0mV accuracy, 8-SMT	598-1777-ND	32.69	25.17	VRE310CS



Video Enhancement Processors

The EVD1000 Series of ICs are a single-chip solution providing sophisticated enhancement capabilities in a remarkably compact, easily-integrated package with no external memory or FPGAs required. The EVD1000 series features a convolution kernel with hundreds of pixels on a side. This means that when EVD enhances a pixel, more than 10,000 of its nearest neighbors are considered. By considering the data in a large neighborhood centered around each pixel as it is being processed, a much larger range of spatial frequencies in the image is allowed. Packaged in a compact 128-pin TQFP (thin quad flatpack) case, these chips use about 1/4 square inch of circuit board real estate and can accept a wide array of digital data formats including YCrCb, RGB, and BT656. 10-bit data paths produce faithful results, and the device is also configurable for 8-bit applications.

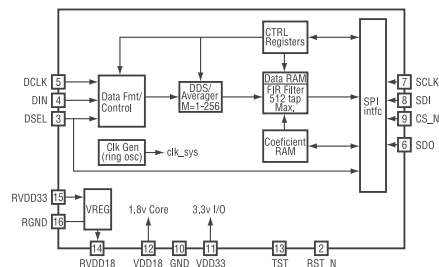
Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.



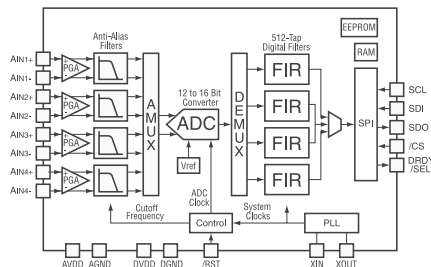
Programmable Digital Filters



The QF1D512 is a single channel, programmable digital filter designed for seamless insertion in the serial data path of a digital signal or used as a FIR coprocessor. The circuit shows the QF1D512 operating between an ADC and an MCU. The device can be programmed using the Quickfilter Design Software which supports most FIR digital filter configurations. The FIR filter has 512 taps capable of generating "brick wall" filters such as a low pass filter with a 1kHz cutoff frequency, 140dB of rejection, and a total transition band of only 10Hz. The filter can operate over a broad range of ADC data rates - from 10sps up to 500ksps and can support ADCs with resolutions ranging from 12 ~ 24 bits.



The QF4A512 Programmable Signal Converter is a 4-channel, signal conditioner and signal converter. Each channel can be individually programmed for the gain, anti-aliasing filter cutoff frequency, A ~ D sampling frequency, and unique filter requirements. This is accomplished with 4 separate high-precision 512-tap FIR filters. Quickfilter software has been created for rapid device configuration and filter design at performance levels unattainable with analog components.



Description	Digi-Key Part No.	Price Each 1	25	Quickfilter Technologies Part No.
IC SavFIR™ Digital Filter 1-Channel 16-QFN	686-1001-1-ND♦†	1.79	1.22	QFN1D512-QN-T
IC SavFIR Digital Filter 1-Channel 16-QFN	686-1001-2-ND♦‡	922.08/1,000	—	QFN1D512-QN-T
IC Programmable Signal Conv. 4-Ch. 32-LQFP	686-1002-ND♦	10.67	8.40	QF4A512A-LQ-B
Development Kit for QF1D512	686-1003-ND♦	159.36	—	QF1D512-DK
Development Kit for QF4A512	686-1004-ND♦	159.36	—	QF4A512-DK
Programmable Adapter for QF4A512-DK	686-1005-ND	144.57	—	QF4A512-PA
Board MSP-MOJO and Expansion Header	686-1006-ND♦	31.99	—	QF1D512-EZ430
Prototyping Adapter for QF1D512	686-1007-ND♦	17.04	—	QF1D512-DIPSTER
IC SavFIR Digital Filter 16-QFN	686-1009-1-ND♦†	1.79	1.22	QF1DA512-QN-T
IC SavFIR Digital Filter 16-QFN	686-1009-2-ND♦‡	922.08/1,000	—	QF1DA512-QN-T
Development Kit for QF1DA512	686-1010-ND♦	159.36	—	QF1DA512-DK

♦ RoHS Compliant † Cut Tape ‡ Tape and Reel

Description	Digi-Key Part No.	Price Each 1	10	Enhanced Video Devices Part No.
Development Kit for DKA-ANALOG	868-1000-ND	127.81	—	801-6209-0
Development Kit for DKD-DIGITAL	868-1001-ND	95.10	—	801-6211-0
Video Clarifier for EVD1000	868-1002-ND♦	20.02	19.22	312-1000-0
Video Clarifier for EVD1500	868-1003-ND♦	24.02	23.07	312-1500-0

♦ RoHS Compliant